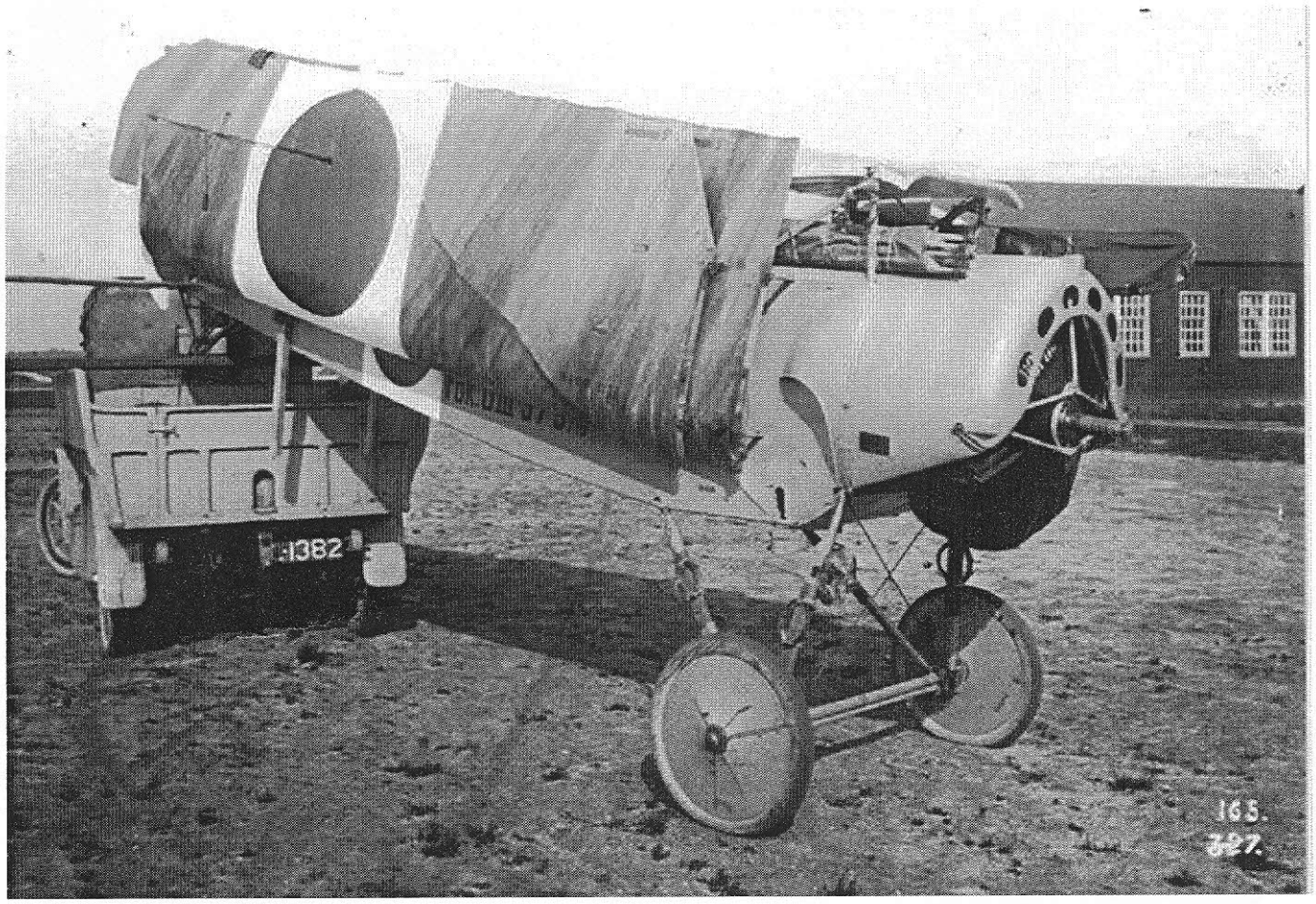
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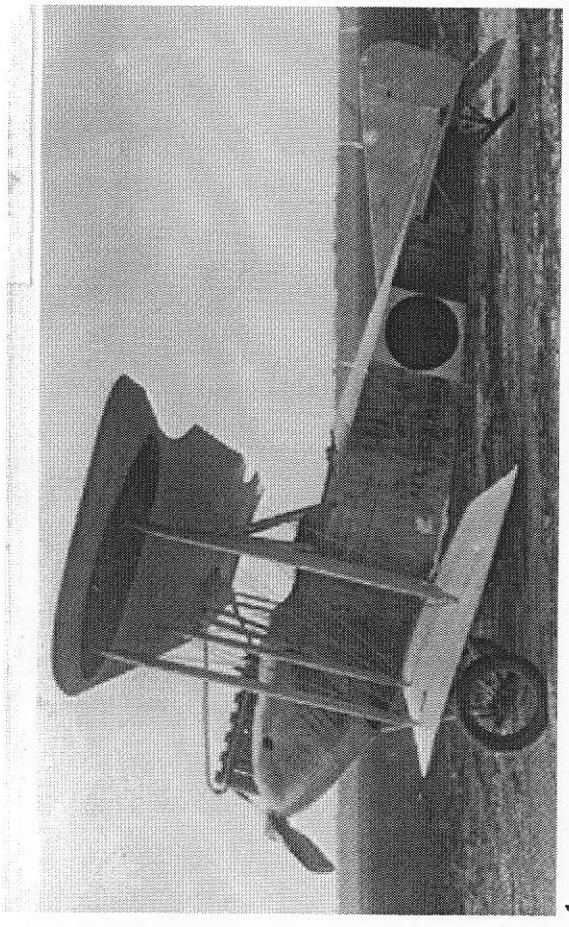
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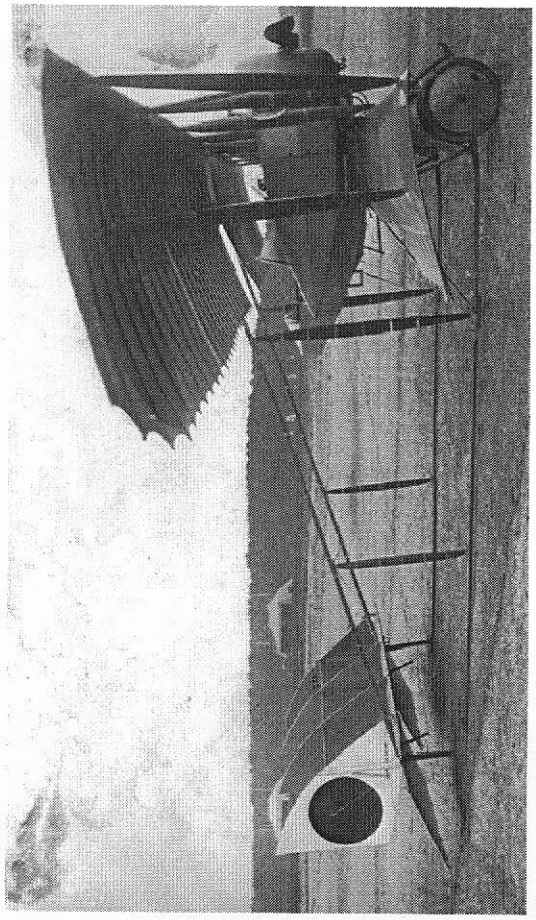


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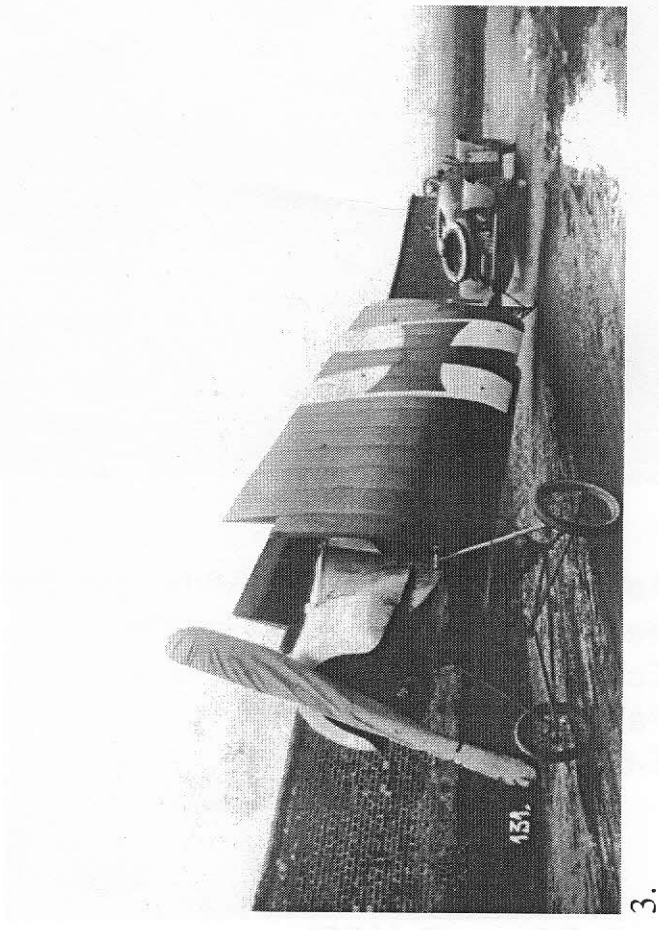
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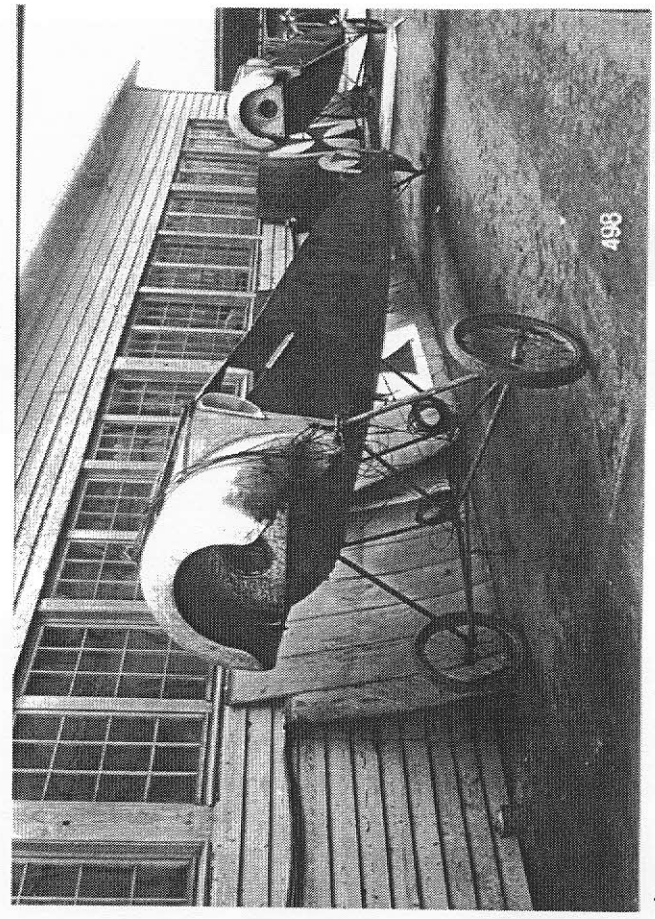
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SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearing House

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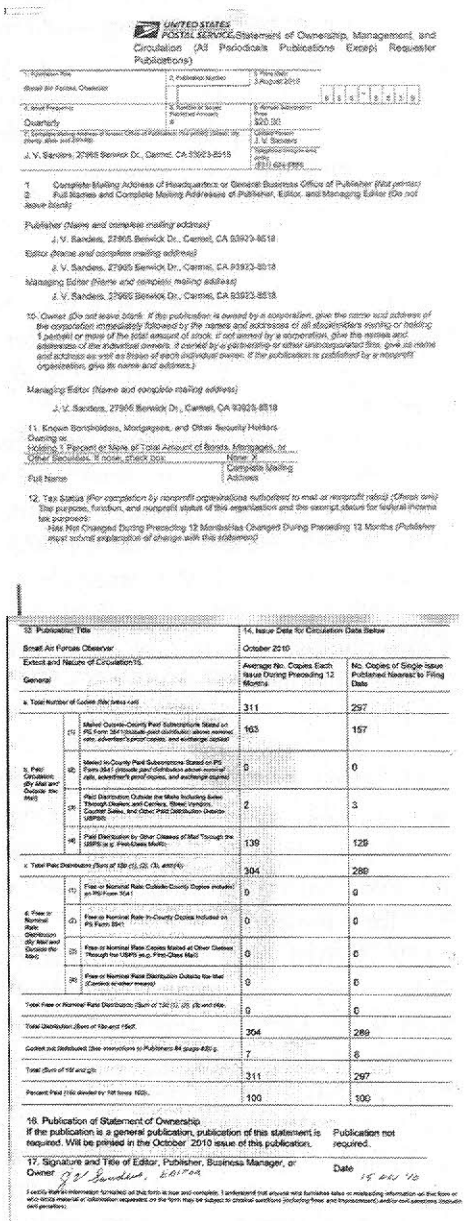
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COVER COMMENTS: Fokker D.III 379/16 Wnr. 666 arrives at Soesterberg behind a truck. The Wnr. is stencilled low on the fuselage near the aft u/c strut. For the story of the LVA during WW1, see the article by noted Dutch aviation historian Frits Gerdessen starting on page 85. (Photo via the author)



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13. Publication Title	14. Issue Date for Circulation Data Below
Small Air Forces Observer	October 2010

15. Extent and Nature of Circulation			Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)			311	297
b. Paid Circulation (By Mail and Outside the Mail)	(1)	Mailed Outside-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	163	157
	(2)	Mailed In-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	0	0
	(3)	Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS®	2	3
	(4)	Paid Distribution by Other Classes of Mail Through the USPS (e.g. First-Class Mail®)	139	129
c. Total Paid Distribution (Sum of 15b (1), (2), (3), and (4))			304	289
d. Free or Nominal Rate Distribution (By Mail and Outside the Mail)	(1)	Free or Nominal Rate Outside-County Copies included on PS Form 3541	0	0
	(2)	Free or Nominal Rate In-County Copies included on PS Form 3541	0	0
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f. Total Distribution (Sum of 15c and 15e)			304	289
g. Copies not Distributed (See Instructions to Publishers #4 (page #3))			7	8
h. Total (Sum of 15f and g)			311	297
i. Percent Paid (15c divided by 15f times 100)			100	100

16. Publication of Statement of Ownership
If the publication is a general publication, publication of this statement is required. Will be printed in the October 2010 issue of this publication. Publication not required.

17. Signature and Title of Editor, Publisher, Business Manager, or Owner J. V. Sanders, EDITOR Date 15 Oct 10

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AUSTRALIA

AUSTRALIAN PLASTIC MODELLERS ASSOCIATION (APMA, PO Box 51, Strathfield, NSW 2135; 4 issues airmail A$40. International payment is best handled via Paypal at iansharyn@bigpond.com.au). Web Site: www.apma.org.

2-10 (26 pages) "Catalina in RAF Service" 14 pages including 6 photos and 15 b&w profile drawings w/ top and bottom plan views. "Sikorsky Sea King in 1/35 Scale" 16 pages on turning a toy into an accurate scale model including 15 photos (7 in color) of RAAF Sea Kings.

AUSTRIA

ÖFH NACHRICHTEN (Oesterrichishe Flugzug Historiker, Pfenninggeldf 18/2/14, A-1160 Wien. Write for free sample.)

3/10 (40 pages) "Österreich-Ungarns erstes britisches Beuteflugzeug: R.E.8 A4445" 5 pages including 3 photo (This is the same article that appeared in SAFO #132. "BFW Messerschmitt M 35b" 3 pages including 5 photos. Color photos: Austria Zlin Z126 '2A-AM & Austrian Bell 206A '3C-JD'.

BELGIUM

KIT (IPMS Belgium, c/o Michel Willot, dreve de Champagne 14, B-1190 Bruxelles; French & Flemish. International Postal Money Order for $30 for 4 issues.

#159 3/2010 (52 pages) "Albatros D.III: 6 pages on building the Eduard 1/48-scale kit including 14 photos. "Home-Made Decals" 2 pages. "Spitfire Mk.I/II" 3 pages on building the AZ Models 1/72-scale kit including 5 photos. "Jaguar GR.9: Israeli Defence Force Strike against Arak Nuclear Plant April 1st 2015" 2 pages on building a "what if" with 4 photos. "National Convention 2010" 3 pages with 33 photos.

FINLAND

MALLARI (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues $20.00, no check accepted due to the high redemption costs). Text in Finnish.

#180 3/2010 (16 pages) "I-16 Type 24" 3 pages on building the 1/72-scale kit by Ukraina including 7 photos of the model and one of the real thing, all in Finnish markings. "Zeppelin – ja Dornier museum Friedrichshafen" 3 pages including 11 photos.

FRANCE

AIR MAGAZINE, Artipresse, 119 rue Anatole France, 93170 Bagnolet, France. Six issues a year. 38 euros in France, 44 euros in Europe, and 55 euros for the rest of the world. E-mail: airmagazine@rocketmail.com.

No. 50 Octobre/Novembre 2010 (66 pages) "Les Polonais à Bourges" 8 pages including 14 photos and table of personnel and aircraft of the "patrouille d'usine de Bourges". "Le Rogozarski IK-3" 27 pages including 32 photos, numerous photos and drawings of construction details, 3 pages of color 4-view drawing (first 2 prototypes & a aircraft in camouflage), 8 color profile drawings, and 5 pages of multi-view scale drawings. The camouflage colors are given as: Gris-vert (Sivo-Zelena) FS14424, Jaune d'ocre (Oker) FS10266, Vert foncé (Tamno Zelena) FS14096, & Brun foncé (Tamno Smedja) FS10045. "Breda Ba.88 Lince (2eme partie)" 4 pages including 5 photos, 4 color profile drawings, and a page of scale drawings. "Les Douglas F4D Skyray et F5D Skylancer (1ere partie)" 10 pages including 14 photos. "La production des Bloch MB 175" 7 pages including 5 photos. "En Maquette: le IK-3" 4 pages on building the 1/72-scale Azur kit including 16 photos. "Maquettes & Livres" 3 pages of reviews of 15 kits and 7 book. Of special interest to SAFO readers are: 4 versions of the Avia B-534 in 1/72 by HR Models, 1/72 Swiss EFW C-3603 in 1/72 by Kora, and a 1/72 Latecoere 294 torpedo bomber by Replica 21. Also from Kora are decals (with resin wheels) for Yugoslav Bf 109E, Hurricane, & Fi 156 Storch.

AVIONS: Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 50 euro for 6 issues). Website: www.avions-bateaux.com. E-mail: contact@avions-bayeaux.com.

#178 Novembre-Decembre 2010 (72 pages) "Spad 27" 12 pages including 28 photos [Spad 20 (6), 26 (1), & 27 (17)], a color 3-view drawing, and cover painting. "Les Caudron CR.714 du GC 1/145)" 7 pages Polish unit including 13 photos and 6 color profile drawings. "Les As français de 14-18: Basile Saunè" 14 pages on French unit in Macedonia including 30 photos and 3 color profiles [Spad 7 & Nieuport 24 (2)]. "100 ans d'Aéronaval" 8 pages including 22 photos of post WWII aircraft and 28 colorful unit insignia. "Le centre d'aviation maritime de Camaret 1917-1918" 9 pages including 15 photos of French seaplanes.

GERMANY

FLIEGER REVUE EXTRA (Verlag Fliegerrevue, Herrn Detlief Billig, Oraniendamm 48, D-13469 Berlin. 4 issues per year, $66 surface. Payment by check drawn on German bank)

#30August 2010 (114 pages) "Pakistanische Starfighter im Kaschmirkonflikt" 22 pages including 35 photos, 2 maps, and 6 color profiles [Pakistan F-104 (2); Indian Canberra, Gnat, Su-7BMK, & MiG-21ML]. "Israels Heyl Ha'Avir 1948" 28 pages including 41 photos, 3 maps, and 24 color profiles [Israeli: RWD 8 & 13; DeH Tiger Moth & Dragon Rapide; Auster J/1, AOP, & AOK; Miles Aerovan; Republic Seabee (misidentified as a Widgeon);

Douglas C-47; Avia S-199 (8). Czech: Avia C-2 & Avia S-199. UN: Airspeed Consul & Douglas C-47. Panama: Curtiss C-46 Commando. Egypt: Spitfire VC.] [Ed: this is an exact copy of the TMA book of the same name but with the French translated into German.] "Brisiliens erste Japos: Mit der Thunderbolt im Zweeiten Weltkrieg" 20 pages including 42 photos, one map, and 2 color profiles (P-47D). "Rote Fernaufklärer: Von der Pe-2 zur MiG-25" 40 pages including 98 photos, 3 maps, 20 color profiles [Il-4, Pe-2 (3), Pe-3, Tu-2, Il-28, Yak-25, Yak-27, Yak-28 (2), MiG-25 (3), Su-24 (6)], and one color 2-view drawings of a MiG-25RB in a camouflage pattern that rivals the complexity of those famous Swedish Viggens.

ITALY

JP4 Menslie di Aeronautica e Spazio. Via XX Settembre, 60-50129 Firenza, Italy. Email: jp4@dueservice.com. Website: www.ediservice.it.

Settembre 2010 (100 pages) Color photos: Austrian Saab 105OE 'RF-26', Finnish Pilatus PC-12 'PI-02'& South Korea KAI Surion. "Garuda 2010" 4 pages including 9 photos [Singapore F-16 (3) and India Su-30 (2). "Elite 2010" 2 pages including 4 photos (Turkish F-4E, Polish F-16, & Norwegian Falcon 20). "Incidenti Militari" 2 pages including 9 photos (Romanian An-2, Bolivian UH-IH, Israeli T-6 Texan II, Philippine Siai S-211, & Canadian CF-18 Hornet).

Ottobre 2010 (100 pages) Color photos: New Zealand AW109 'NZ3402'; Afghanistan G.22; Colombia CN235; & Kazakistan Su-27UB. "Ultimi Phantom tedeschi a Decimomannu" 4 pages on last deployment of German F-4 to the Decimomannu range including 11 photos. "I 75 anni del Douglas DC-3 Dakota" 4 pages on the gathering of vintage DC-3 with 13 photos. "Incidenti Militari" 2 pages including 3 photos (Israeli CH-53, Greek Apache, & North Korean MiG-21 (crashed in China!).

Novembre 2010 (100 pages) "Le tigri della Patagonia" 6 pages on Chile's Northrop F-5s including 9 photos and an excellent English summary of the history of the F-5 in Chile. "Il Museo dell'Aviazione di Bucarest" 4 pages including 11 photos (IAR 80 replica; Mig 15, 17, 19, & 21, Yak-23; IAR 93; & Soko J-21), and an English summary. "Incidenti Militari" one pages including 3 photos (Croatia MiG-21, Jordan F-16, & Singapore AH-64).

POLAND

LOTNICTWO (Krzystof Zalewski, ul Grochowska 306/310, pok. 206, 03-840 Warszawa. E-mail: kz@magnum-x.pl.)

7/2010 (96 pages) "Lotnictwo Sił Lądowych Grecji" 6 pages including 15 photos (AH-64 Apache, CH-47 Chinok, UH-1 Iroquois, Hughes NH.300, & Beech C-12). "MiG-25RB (2)" 10 pages including 3 maps & 17 photos (most Russian, but one each of Bulgaria, India, Algeria, & Iraq). "Gloster Gauntlet" 9 pages including 18 photos (all RAF), and a 5-view scale drawing. Plus a centerfold photo of a Polish SBLim-2 (MiG-15UTI).

8/2010 (96 pages) Color photos: Pakistan F-16; Finland Pilatus PC-12; India C-130J 'KC-3801'; Denmark C-130J 'B-583', & Norway C-130J '5607'). "Samoloty do przewozu VIP" 8 pages with 18 photos (Kuwait Airbus A340, Belgium Airbus A330 & Embraer ERJ-135, Armenia Airbus A319, Iran Airbus 321, Belarus Boeing 737, Brazil Embraer Linage 1000, Switzerland Dassault Falcon 7, and Turkey Gulfstream G550). "Brigada de Aviacion Ejército Colombiana" 8 pages including 18 photos (Sikorsky UH-60 Black Hawk, Cessna Grand Caravan, Gulfstream Aero Commander 695, Convair CV-580, Mil Mi-17, & Bell UH-1N). Plus a centerfold of a Colombian Black Hawk. "Wielka Wojna Zeppelinów (1)" 10 pages on WWI Zeppelins including 18 photos. "Czas na bombowce (1)" 8 pages on the September Campaign with 2 maps and 10 photos. "Najstarszy do dziś latający samolot PLL LOT" 4 pages on a Polish C-47 'SP-LCB', 'N8071X') that went to South Africa and was converted to turbo props including 9 photos (7 in South African markings).

USA

SKYWAYS: The Journal of the Airplane 1920-1940 (PO Box 730, Red Hook, NY 12571. Website: ww1aeroinc.org. E-mail: subscriptions@worldwar1aeroinc.org . E-mail: ww1aero@gmail.com

#92 October, 2010 (96 pages) "US Aviation Exhibit in the 1940 World's Fair New York" 5 pages including 13 photos. "Tale of a Navy Tail" 3 pages on the Waco XJW-1 including 3 photos. "The B-29 and the Home Front Battle" 4 pages including 29 photos. "Amy Johnson Takes on Australia" 3 pages including 2 photos. "AirVenture 2010" 5 pages with 29 color photos. "DC-2 vs. DC-3" 7 pages with 31 color photos. "Brooklyn's Flying Wing: The Tuscar H-17" 2 pages including 5 photos. "Miscellaneous Photos from the Golden Age" 4 pages with 15 photos. "First Flying Freight to Frankfort: The Hindenburg and the Spanish Civil War" 4 pages including 6 photos. "Blakesburg & Brodhead 2010" 6 pages with 22 color photos. "Before Laguardia: North Beach Airport 1928-1937" 6 pages including 13 photos. "Cockpits: de Havilland DH-4" 2 pages with 1 photo. "Models" 4 pages including 22 color photos. "Reproductions & Restorations" 4 pages including 18 color photos. "Reviews" and "From the Members".

The North American T-6 in Congolese Service (Part 3)

Leif Hellström

[Author's note: The first and second parts of this article, published in SAFO no. 128 (April 2009) and no. 134 (October 2010), covered the use of the T-6 in Congolese service as a light attack aircraft. This final part will describe its use as a trainer by the Italian flying school in the Congo, from 1964 onwards. As before, the designation T-6 will be used as a collective term for both T-6s and Harvards, when needed.]

Right from independence in 1960, the Congolese armed forces were in need of foreign assistance for re-training and re-organization. The UN, in co-operation with the USA, put together a package deal where different countries would help with different aspects of the training. Training of the Congolese Air Force would be performed by Italy. In the end the UN withdrew from the program but some parts of it went ahead, anyway. Italy and Congo reached an understanding in principle in early 1963, and in October that year twelve Congolese (who had previously trained in Belgium) were sent to Italy for flying training.

On 12 May 1964, a formal agreement on technical assistance for military aviation was signed in Rome, covering an initial period of 18 months, and three days later DICTMA was formed. The acronym stood for Delegazione Italiana di Cooperazone Tecnico Militare Aeronautica (Italian Delegation of Technical Co-operation for Military Aviation) which had as its mission to "Provide adequate assistance for the implementation of the aeronautical military-technical cooperation program, in order to allow the consolidation of the basic structure necessary for the further development of the Congolese Air Force." DICTMA was to be based at N'Dolo airport, and supported from Italy by the 46ª Aerobrigata of the AMI.

The advance party, including the first of the 14 officers assigned to DICTMA, went out to the Congo in late May 1964, followed by the main force a few weeks later. One of the Italian instructors, Giorgio Grigoletto, recalled:

> *On 22nd June, 1964, 2 USAF C-124 with civilian crews landed at Brindisi: the young Captain Grigoletto, 33 technicians, 6 dismantled T-6, 4 cars including 2 Italian jeeps, a good stock of wine and spaghetti boarded and flew to Leopoldville.*

Setting up DICTMA at N'Dolo took some time and meanwhile the re-assembly of the aircraft progressed at the larger N'Djili airport, where they were test flown by Captain Albano as they became ready. The six aircraft delivered by the Italians were Canadian built Harvard 4s (sometimes referred to as "T6-H.4M" by the AMI), which had been fully reconditioned before shipment to the Congo.

However, as recounted earlier, DICTMA actually had no immediate use for all its Harvards, since there were no Congolese student pilots able to fly them as yet, and on 22 July 1964 it was agreed that only one of the six initial aircraft would be retained by the Italians, as something of a personal aircraft for the DICTMA commander, Colonel Enzo Romano. This was AT-789, taken on official DICTMA strength on 19 August. The solitary Harvard was initially used as a hack, for proficiency flights by the Italian instructors. The other five Harvard 4s passed to the mercenary 21 Squadron, as described in part 2 of this article.

One of the Italian instructor pilots used to challenge the Cuban mercenary pilots, flying T-28s for the CIA, to fly stunts in the Harvard. "And he used to fly the T-6 very well. Upside down, near the runway." But the Cubans declined to be drawn. "Forget about it: we are here to make money, not get killed!"

The initial plans called for Italy to deliver 20 Harvards to the Congo and by the end of 1964, six more aircraft were said to be ready for delivery. Of these, DICTMA wanted to keep at least three for its training program. But now began a drawn-out battle over the delivery of the Italian Harvards, and how they were to be used. Colonel Romano was at permanent loggerheads with the Belgians staffing FAC Headquarters, who wanted to use all available aircraft for the war effort rather than training, and on 19 December, the Italian government stated that it would not deliver any more Harvards for the time being.

All primary flight training was still carried out in Italy. Ten of the twelve Congolese trainees in Italy got their wings on 22 December 1964 and soon returned to the Congo. They each had a total of 340 hours' flying time, of which 156 hours was on the T-6. A US report stated:

> *The Italians were very enthusiastic about the pilots' ability to take off, fly the traffic*

pattern and land. They harbor no illusion, however, that they will be ready in the near future for combat duty on armed T-6s.

The Italians wanted to give the returning Congolese continued training using T-6s, making them into a "model group". Due to shortage of aircraft, training emphasis instead had to be on command and staff duties.

To help up the situation, and to have something to train on, DICTMA pulled an Auster D.5 and a Piper Pacer from the FAC junkyard and put them back in flying order. Flying training on the Auster and the single Harvard 4 began on 3 February 1965.

The same month, the FAC was elevated in status to a separate arm of service, on par with the army. At the same time a proper organizational structure was introduced for the first time. There were two main units: 1er Groupement at N'Dolo, and 2ème Groupement at Kamina. The latter was a paper unit only, supposedly in command of all the operational units of the FAC, and was never actually set up. The 1er Groupement, on the other hand, included the training and supply units of the FAC, and DICTMA's operations now came under the formal control of the new 1er Groupement commander, Lt.Col. Leonard Losso.

On 25 February 1965, General Mobutu and various foreign military attachés visited N'Dolo and a flying demonstration was laid. The dignitaries were taken aloft in a C-47 with an all-Congolese crew, escorted by two T-6s flown by Congolese. For legal reasons, the Italian Harvards (of which there was still only one, anyway) could only be used with an Italian instructor aboard. Two of FAC's old Belgian T-6s were therefore borrowed from 21 Squadron. These were Harvard 2B 9T-P46 (in due course re-serialled AT-046) and T-6C FE-031 (formerly 9T-P31). They were apparently used sporadically by DICTMA over the next few months, until further Harvard 4s were received.

DICTMA had so far been spared any serious accidents, but this was not to last. On 4 March 1965 (some sources say 5 March), Captain Romano Albano was practising spins in Harvard AT-789 with Adjutant Charles Ebonga, when the Congolese froze at the controls during a spin. Albano tried to get him to release the stick but in the end he had to jump to save himself. The Harvard came down in Leopoldville not far from N'Dolo, but luckily the house it crashed into was empty at the time. Ebonga was killed.

During the spring, DICTMA finally received some additional Harvards from Italy, and the first two of these were taken into service in the first half of April 1965. By this time the two borrowed T-6s had been returned to 21 Squadron.

That same month, DICTMA received an invitation "with a slightly challenging tone" from the Aero Club of Jadotville, in Katanga, to attend an air show organized by the club at the local airport. The Italians could not refuse and prepared a program and an aerobatic performance by two Harvards flown by Captain Carlo Zorzoli and Adjudant Leon Lengha-Lengha, one of the Congolese who had been in training since around 1962.

The two set off from Leopoldville on 29 April 1965, flying AT-834 and AT-813, respectively. At the first refuelling stop, at Kikwit, they were press-ganged by the local army commander to help him defeat a group of rebels still active in the area. The Congolese Colonel failed to notice that the two Harvards were completely unarmed. Zorzoli assured the Colonel that "no trace would remain of the rebels" after they were done with them, and then the two pilots hurriedly took off and continued their journey, "like two mice that escape the cat."

The next scheduled stop was Luluabourg, and then they continued towards Kamina, a leg of some 420 km (260 miles). Navigation in this part of the Congo was difficult, with few if any landmarks, and the radio beacon at Kamina was not switched on. Well into the flight, Lengha-Lengha suddenly called out that his fuel warning light was on. Zarzoli still plenty of fuel left so something must have gone wrong at the last refuelling. Since he could not abandon his pupil, he decided to put down at the nearest open space they found, near a river. To avoid the risk of over-turning on the unknown ground, the two Harvards belly-landed, suffering only relatively minor damage.

It turned out that they were at the small village of Kabumbulu, some 220 km from Kamina and no less than 15 degrees off course. There was no telephone and the nearest government post was some considerable distance away. The two intrepid flyers set off on borrowed bicycles, reaching the town after two nights and a day, having crossed some 60 km of jungle tracks and savannah.

Once having returned to Leopoldville, Zorzoli organized a rescue expedition to recover the two Harvards. Equipment and a dozen Italians were flown out to the nearest airfield in a C-47 and at the village 50 Congolese were hired as labourers, preparing a rough airstrip while the Harvards were hoisted up and repaired. On 17 May they were successfully flown out from the crash site and soon returned to service.

A third, newly delivered Harvard entered DICTMA service in late April, followed by three more at intervals during the second half of 1965. A total of seven Harvard 4s had thus been received, six of which were in service by late 1965 and onward. There were four Italian Harvard instructors at this time but some of these also flew the C-47. Some Congolese mechanics were also given on the job training.

It was difficult to get any funds from the Congolese government and some ambitions, such as building a gunnery range and arming the DICTMA Harvards for gunnery practice, and as reserve strike aircraft for emergencies, were never fulfilled. One reason was that the idea was resisted by some Belgian officers with the FAC. Instead, armed Harvards of 21 Squadron were occasionally borrowed for gunnery training. Some Congolese pilots participated in in a fire-power demonstration on the Armed Forces day on 17 November 1965, using 21 Squadron aircraft recalled from the front for the purpose, and observers were impressed by their ability and potential.

The progress of the Italian mission was slow and it periodically received criticism, particularly from the Belgians. A US report in October 1965 stated: "It is a costly concept, as it creates a brand new air force, side by side with the existing air force which is already functioning and is operational on all fronts." During the year, only five Congolese received additional navigational and air-to-ground gunnery training in the Harvards.

One of many planned FAC re-organizations, this one from early 1966, proposed to split the 1er Groupement (DICTMA's counterpart organization in the FAC) into three separate wings. One of these would be the School Wing, which would include 126 Squadron, a T-6 training unit. Another would be 19 Wing, incorporating 127 Squadron, a T-6 unit which would fly actual missions as a kind of operational conversion unit. There is nothing to suggest that any of these units progressed beyond the paper stage.

For a period there was great uncertainty whether DICTMA would continue its operations, due to a lack of Congolese interest in the school, but this was overcome with US help. In the spring of 1966, a primary flying school was also set up by DICTMA, using Piaggio P.148s, and the complete training cycle was now carried out at N'Dolo. In December that year, 18 new student pilots got their wings, with 35 more scheduled for the 1967 program. The Harvards were used as secondary trainers, as before.

A US report from early 1967 pointed out that the Italian training program only aimed at training pilots, while failing to train officers for maintenance, logistics and other skills necessary for an air force. The report also lamented that "nobody yet has found a way to imbue any sense of responsibility in the young Congolese", who ignored even fundamental record keeping and maintenance schedules.

1er Groupement and DICTMA received the remaining three Harvard 4s and single Harvard 2B from the mercenary 210 Squadron when that unit re-equipped with T-28s in early 1967 but there is no indication that either was ever flown again, even if they remained on official FAC strength for a year or more.

By mid 1967, still only a few Congolese had qualified on the Harvard, but only "for show"; none were ready to join operations. Despite this, a few did in fact fly some T-28 missions in the autumn of 1967, with disastrous results.

DICTMA were ordered to move its entire training operation to the old Belgian training base at Kamina in November 1967, which greatly annoyed the Italians, and especially the new head of the mission, Colonel Conti, who preferred Kinshasa (as Leopoldville had by now been renamed), and the move was never carried out.

By mid 1968, DICTMA calculated that the Harvards had enough remaining hours to meet the training needs for that year and the next. The cost of maintaining the Harvards for this period was estimated at US$ 260,000. There was a good supply of T-6 spare parts at N'Dolo, collected by the Italians from a variety of sources around the Congo.

However, in 1968 the Congolese students began flying the T-28 rather than the T-6 as advanced trainer. The six AT-serialled Harvard 4s were still in service, but even if they were to remain flyable, it was reported in mid 1968 that "they will in all probability be used only for local air shows."

The last documented flight of a DICTMA Harvard, and thus also of any FAC T-6, took place on 31 May 1969, by Italian instructor Gianni Batista Meocci, but there may well have been others after this date.

The following year the British air attaché listed eight T-6s as still being on FAC charge, presumably including a couple of the long-since withdrawn fighter-bombers. Somewhere around this time, a reorganization of the FAC reportedly created a new 132ème Escadrille at N'Dolo which received some of the new MB-326G trainers, and apparently also some Harvards. This was little more than a paper shuffle, however.

DICTMA disbanded at the end of 1971 and by May 1972, the British air attaché reported that the eight T-6s were "rarely flown and largely unserviceable." Even this was likely an overstatement, and for all practical purposes 1971 can no doubt be considered the year that the T-6 was withdrawn from FAC service. There is nothing to suggest that any of them passed to the new Force Aérienne Zairoise (FAZ), created from the FAC when Congo changed its name to Zaïre in late 1971.

The remaining T-6s and Harvards were evidently scrapped, although the fuselages of a couple of them still survived in a Kinshasa scrap yard from where one of them (AT-845) was rescued in the 1980s and taken to N'Dolo. It remained there in the 1990s but its present status is unknown.

Painting and markings

For the two older T-6s borrowed from 21 Squadron, please refer to part 2 of this article.

As also mentioned in the previous part of the article, the Harvard 4s were all painted in a rather peculiar yellow colour with a distinct greenish tinge. This was an Italian colour called "Giallo Limone ad Alta Brillantezza n. 22" (High Gloss Lemon Yellow no. 22). The Italians referred to the Harvards painted thus as "canarini" (canaries). The FS 595 reference is approximately 13481. The Italian roundels in six positions were painted out after arrival in a slightly more brownish hue than the rest of the aircraft. Anti-glare panels were black.

Unlike the Harvard 4s of 21 Squadron, those of DICTMA are not known to have had part of their canopies tinted, nor their spinners and wing tips painted in various colours.

The aircraft carried 1964 style Congolese national insignia, with short red and yellow bars, on the fuselage, on top of the right wing and under the left wing (the reverse of US practice). The insignia on the wings were slightly bigger than those on the fuselage. Congolese flags were painted on the fins. Aircraft serials appeared on the fuselage in black, in a larger size than on most 21 Squadron aircraft. An MM number in black was carried on the rear fuselage, below the tail plane, and under that some aircraft had the Italian type designation "HA.4" in the same size.

Around 1970, the remaining Harvard 4s had the national insignia on their fuselages increased to about twice the original size, whilst the serial was reduced in size. The flag on the fin was also enlarged. The national insignia on the wings may or may not have been increased in size as well: there is no photo evidence either way and practice on other aircraft types varied.

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Captions for photos on pages 107-108

1. Two of the first Harvard 4s, which arrived in the Congo from Italy in June 1964. Each aircraft was neatly packed on a pallet and had been airlifted to N'Djili airport in Leopoldville. They had been restored to virtually new condition and repainted, and still carried Italian national insignia on arrival. (Gösta Kersmark)
2. While awaiting additional Harvard 4s, DICTMA occasionally borrowed old FAC T-6s for training purposes. T-6C FE-031 is seen here on 25 February 1965, flown by Congolese student pilot Sub-Lieutenant Louis Baruti, who rose to become Commander of the Zairean Air Force in the 1990s. Note bogus MM number under the tailplane. (Carlo Zorzoli)
3. AT-834 was one of the two Harvard 4s which ran out of fuel on a cross-country flight on 29 April 1965 and belly-landed out in the bush. It is seen guarded by a Congolese soldier, pending on the spot repairs, after which both Harvards were flown out under their own power. (Carlo Zorzoli)
4. Congolese mechanics make themselves busy on Harvard 4 AT-813 at N'Dolo airport in July 1967, under the watchful eyes of an Italian instructor. Note the Italian markings under the tailplane. (AMI #4963)
5. Although published before, this remains one of the best photos of a DICTMA Harvard 4, taken at N'Dolo in July 1967. Note the national insignia on the wing. In the background are a couple of the Piaggio P.148 primary trainers also used by DICTMA. (AMI #4943)
6. AT-827 in flight, showing the position of the national insignia under the right wing. The DICTMA Harvards were always unarmed. (Via Gianni Meocci)
7. A nice study of one of the DICTMA Harvards on a training flight over the Congo River. The aircraft were kept very clean and tidy. (Archivio Storaro)
8. This view of the sorry remains of AT-845 at N'Dolo in the 1990s is the only available photo showing the final markings of the Congolese Harvards. Note that the national insignia and flag are much larger than previously, while the serial (seen only as a "shadow" after the black paint has flaked) is smaller than before. (Michel Anciaux via Michel Huart)

T-6s and Harvards of the Force Aerienne Congolaise

This list includes all T-6s and Harvards of the FAC, as described in all three parts of article. Due to the complexities of the serial number systems used by the FAC in the 1960s, the list has been broken down into three sections. Aircraft which were re-serialled will appear in more than one section, with service dates in brackets indicating the re-serialling date. Identity link-ups marked * are uncertain.

Serial	Type	C/n	Previous IDs/users	Served from	Served to	Remarks
First and second serialling systems (1962-1963):						
WE-21	T-6C	88-12546*	41-33653, RAF EX680, SAAF 7329, FAB H45, OO-GEP*	c.Jan 62	c.63	Unarmed trainer. Correct c/n possibly 88-9844. Abandoned at Luluabourg with undercarriage problems. Last flown Mar 62.
WE-22(?)	T-6C	88-10635*	41-33515, RAF EX542, SAAF 7269, FAB H17, OO-GEM*	c.Jan 62	(Early 64)	Unarmed trainer. Likely not flown after 1962. To 9T-P31 (which see).
H22	T-6C	88-9670	41-33237, RAF EX264, SAAF 7107, FAB H22	20 Aug 62	(Late 63)	Fighter-bomber. To 9T-P32 (which see).
H23	T-6D	88-16009	42-84295, RAF EZ292, SAAF 7622, FAB H23	20 Aug 62	3 Apr 63	Fighter-bomber. Collided with H34.
H34	T-6D	88-14717	41-33883, RAF EX910, SAAF 7476, FAB H34	20 Aug 62	3 Apr 63	Fighter-bomber. Collided with H23.
H35	T-6D	88-14884	41-33912, RAF EX939, SAAF 7505, FAB H35	20 Aug 62	(Mid 63)	Fighter-bomber. To 9T-P35 (which see).
H220	T-6C	88-13590	41-33744, RAF EX771, FAB H220	20 Aug 62	(Late 63)	Fighter-bomber. To 9T-P36 (which see).
H221	T-6C	88-13603	41-33757, RAF EX784, FAB H221	20 Aug 62	(Late 63)	Fighter-bomber. To 9T-P37 (which see).

Third serialling system (1963-1964):

9T-P31	T-6C	88-10635*	Ex WE-22(?) (which see)	(Early 64)	(Jan 65)	Unarmed. To FE-031 (which see).
9T-P32	T-6C	88-9670	Ex H22 (which see)	(Late 63)	c.Jul 64	Fighter-bomber. WFU.
9T-P35	T-6D	88-14884	Ex H35 (which see)	(Mid 63)	c.Jul 64	Fighter-bomber. WFU.
9T-P36	T-6C	88-13590	Ex H220 (which see)	(Late 63)	Feb 64	Fighter-bomber. Crashed on landing at Idiofa by Lt. Soto. Salvaged but not repaired.
9T-P37	T-6C	88-13603	Ex H221 (which see)	(Late 63)	c.Jul 64	Fighter-bomber. WFU.
9T-P46	Harvard 2B	14-143	42-606, RCAF FE409, PH-UEK, OO-GDD	c.May 63	(Mid 65)	Fighter-bomber, later unarmed proficiency trainer. Marked "MM.53046" in 1965. To AT-046 (which see).
9T-P47	T-6C	88-9778	41-33278, RAF EX305, SAAF 7115, FAB H37, OO-GDK	c.May 63	c.Jul 64	Fighter-bomber. WFU.
(None?)	T-6C	88-13598	41-33752, RAF EX779, SAAF 7409, FAB H43, OO-GDM, Avikat KA-25		(Not taken up)	Handed over by UN in flyable condition Feb 64. Abandoned unused at Jadotville but possibly given 9T- serial on paper.

Fourth serialling system (1964 onwards):

AT-046	Harvard 2B	14-143	Ex 9T-P46 (which see)	(Mid 65)	c.68	Unarmed proficiency trainer. WFU. Probably last flown late 1966. Marked "MM.53046".
AT-789	Harvard 4	CCF4-...	AMI MM53789	19 Aug 64	4 Mar 65	Unarmed trainer. Crashed near N'Dolo, flown by Capt. Albano (jumped) & Lt. Ebonga (killed).
AT-813	Harvard 4	CCF4-...	AMI MM53813	5 Apr 65	c.71	Unarmed trainer. WFU.
AT-817	Harvard 4	CCF4-...	AMI MM53817	29 Sep 65	c.71	Unarmed trainer. WFU.
AT-824	Harvard 4	CCF4-...	AMI MM53824	5 Nov 65	c.71	Unarmed trainer. WFU.
AT-827	Harvard 4	CCF4-...	AMI MM53827	7 Jul 65	c.71	Unarmed trainer. WFU.

AT-834	Harvard 4	CCF4-...	AMI MM53834	12 Apr 65	c.71	Unarmed trainer. WFU.
AT-845	Harvard 4	CCF4-408	51-17226, AMI MM53845	25 Apr 65	c.71	Unarmed trainer. WFU. Fuselage kept at N'Dolo airport, Kinshasa in 1990s.
FB-043	T-6G	197-043?	AdA 52-8239?, FAP	10 Aug 64	24 Nov 64?	Fighter-bomber. FAP sources incorrectly give ID as T-6A FAP 1622; ID shown here is guesswork. Possibly initially serialled FA-043. Fate uncertain; possibly crashed at Moanda by Cdt. Wójcik on date shown.
FA-079	T-6G	182-079	AdA 51-14392, FAP 1709	10 Aug 64	15 Aug 64	Fighter-bomber. Crashed on landing Luluabourg by Lt. Kingman and Puren.
FA-090/ FB-090	T-6G	197-080*	AdA 53-4584, FAP 1671*	10 Aug 64	Aug 65	Fighter-bomber. Crashed on landing approach at Bumba by S/Lt Pechard. Marked "MM.53090".
FB-743	T-6G	182-743	AdA 51-15056, FAP 1684	10 Aug 64	19 Feb 65	Fighter-bomber. Crashed at Kitona by Cdt. Wójcik (killed) during napalm demo. Possibly initially serialled FA-743. Marked "MM.53743".
FB-782	Harvard 4	CCF4-...	AMI MM53782	23 Jul 64	c.68	Fighter-bomber. WFU. Probably last flown early 1967.
FB-783	Harvard 4	CCF4-...	AMI MM53783	21 Jul 64	18 Jan 66	Fighter-bomber. Force-landed north of Ulele by Lt. Vivier.
FB-808	Harvard 4	CCF4-...	AMI MM53808	7 Jul 64	28 Aug 64	Fighter-bomber. Stalled and crashed on take-off at N'Dolo. Lt. Demoulin and Eschett killed.
FB-809	Harvard 4	CCF4-...	AMI MM53809	9 Jul 64	c.68	Fighter-bomber. WFU. Probably last flown early 1967.
FB-836	Harvard 4	CCF4-...	AMI MM53836	22 Jul 64	c.68	Fighter-bomber. WFU. Probably last flown early 1967.
FE-031	T-6C	88-10635*	Ex 9T-P31 (which see)	(Jan 65)	66	Unarmed proficiency trainer. WFU. Probably last flown mid 1965. Marked "MM.53031".

The Luchtvaartafdeeling in WW.1

Frits Gerdessen

Nieuports and Caudrons

In August of 1914, the Luchtvaartafdeeling (LVA), under the command of kapt. H.Walaardt Sacré (C.LVA) had 12 aircraft on charge:

3 Farman HF.20
4 Farman HF.22 (one belonged to the Navy)
2 Van Meel aircraft
2 Brouckères (belonging to the Netherlands East Indies Army)
1 Blériot-like taxi trainer.

There were 4 regular officer pilots, 3 reserve officer pilots (one naval) and 2 contracted civil pilots. This was a very meager strength.

Thanks to Gnome rotaries that had been obtained from France, the Trompenburg factory in Amsterdam was able to produce in 1915-17: 17 Farman HF.22's; eleven for the LVA and six for the Navy. In 1915, the HF.22 was already obsolete and only suitable as a trainer, but apart from a few one-off modern interned aircraft the LVA had nothing better.

In 1915, one of the reserve pilots, lt. J. Labouchère, who had worked with Zodiac in France, was posted to the Dutch Embassy in Paris. He was charged with the acceptance of Gnome rotaries and to report on advances in aviation and aircraft.

Also in 1915, a special institute was founded in Holland to co-ordinate and make purchases of military equipment for the army. Several businessmen were involved in this Munitiebureau, and it was felt that their international connections would be useful.

In 1916, the LVA continually tried to obtain aircraft both in France and in the United States. Lt. Labouchère reported on 19 June that the best fighter aircraft in use was the SPAD, but this aircraft could not be exported. The next best fighter aircraft were the 110 hp Nieuport single-seater and the 110 hp Morane two-seater. The best reconnaissance aircraft was the Caudron G.4.

The C.LVA (kapt. Walaardt Sacré), on 2 May, submitted a proposal to purchase 10 Morane fighters and 10 Caudron recce aircraft along with 25 110 hp and 50 80 hp Le Rhône rotaries. On 23 May, he was given permission to order only five Moranes and five Caudrons.

Lt. Labouchère and others went to work in France, but it wasn't until New Year Day 1917 that a firm order was placed. This order was for 20 aircraft: ten Caudrons, five 80 hp Nieuports, and five 110 hp Nieuports. The extra five Caudrons and the five 80 hp Nieuports were to be taken from a Romanian order that could not be delivered since by that time Romania had been occupied by the Central Powers. In addition, spare rotaries were ordered. In January 1917, the C.LVA (now a major) wrote in his monthly report that the aircraft had been ordered.

But, thereafter the delays were enormous. The aircraft were at last transported by train from Paris on 18 September: but the shipment consisted of only five Caudrons and ten Nieuports, and no spare engines. These aircraft were sent to Vigo in Spain and the Dutch Government chartered a ship, the SS Rhea, to collect the aircraft and other important cargo. The Rhea was twice held up by the Royal Navy and inspected at Gibraltar. Lt. Labouchère, who was back from France by 1 May 1918, reported that he had met some of the Rhea's crew in London, and they reported they didn't know what had happened to their ship. The Rhea finally arrived in Holland in June 1918, and the aircraft were delivered to Soesterberg on the 24th of the month – 18 months after the placement of the order. (Note 1)

The French aircraft were quickly assembled and were given serials C427-C431 (Caudron), N215-N219 (Nieuport 21) and N220-N224 (Nieuport 23).

On 30 July, Caudron C427 and a Nieuport 23, most likely N220, were test flown by kapt. F.A. van Heijst. On 7 August, he flew the Nieuport with armament and found that the guns made no difference in the flying characteristics. No further Caudrons were assembled but most, if not all, of the Nieuports were assembled. The lone Caudron was earmarked for tests with the Groeneveld Meijer bomb gear, but that never happened.

On 1 November 1918, the first fatal crash in the LVA occurred; Caudron C427 and Farman HF19 collided 150 meters over Soesterberg. All 4 crew were killed; lt. J.P.van Oosten (pilot) and lt. B. van Doorn (observer) in the Caudron and sgt. C.H.F. de Greef (pilot) and E.T. Schoppenhauer (student pilot) in Farman. This crash was witnessed by a group of about 30 newly-arrived student pilots - some of whom immediately left the service!

The assembly of another Caudron was started, but never completed. That must partly have been due to the end of the war when many LVA conscripts were demobilized. For several months the LVA had a severe personnel problem. Most likely, the remaining Caudrons were written off in 1919.

On 4 January 1918, the Embassy in Paris cabled Lt. Labouchère informing him that 10 Sopwith 1½Strutters, originally intended for Russia, were available at a bargain price. The Munitiebureau rejected the offer, arguing that the Caudrons and Nieuports were still on their way, and they feared the same delays for the Sopwiths. In addition, the 1½Strutter had already been retired from the Western Front and would surely be obsolete upon their arrival.

The Nieuports were intensively used. Several pilots trained on the type. In August-September 1919, three 21's and one 23 Nieuport types were flown at the ELTA exhibition. (Note 2).

A new task was found for the Nieuport 23 - meteorological flights. The LVA was already conducting met flights, but now a fixed schedule was arranged with the KNMI (Royal Meteorological Institute) at nearby De Bilt. At 0700 hours each morning, a Nieuport would climb as high as possible with self-recording instruments, but without oxygen. (Note 3) Sometimes a flight was made in the afternoon. On its return, the data would be rushed to the KNMI, and in about half an hour after receipt they would have a forecast ready. Later this duty was taken over by the Fokker D.VII.

Sgt.maj. J.W. van der Drift established an altitude record on 21 November 1918 with a Nieuport 23: 6100 m. On 18 June 1920, wmr. E.J. Need attained 6500 m on a regular met flight with N224. (Note 4)

Nieuport 21's were most likely retired in 1920, but the 23's lasted a few years longer. At least one is known to have carried the red-white-blue roundel introduced in 1921. N220 may have been w/o about 1920.

The LVA also used the Nieuport 11. Trompenburg built 20 using one as a pattern aircraft: s/n 3981, ex-RNAS (Royal Navy Air Service), interned on 26 February 1917. The interned aircraft first became LA40 and later, in December of 1917, it was renumbered N213. (Note 5)

The Trompenburg-built aircraft were delivered in 1918. At the factory they were given serials NSP214 and up. (Note 6) However, since these serials had already been given to other aircraft, they were renumbered NSP230-249. They were not flown before 1920, and only a few were used (at least 234, 236, and 237). They were of little use once the Fokker D.VII was put into service. They were still flying in 1923-34, and were only written off, with the 23's, in 1925.

Fokker Aircraft

From 1920 on, the LVA relied heavily on Fokker aircraft, and from 1925-36 it was exclusively equipped with them. However, the first Fokker aircraft had appeared in Holland as early as 1916.

The Dutchman, Anthony Fokker, went to Germany in 1910 and obtained a pilot's license, German nr. 88, on 7 June 1911. He built his own aircraft, the Spin (Spider), in co-operation with Jacob Goedecker at Nieder Walluf.

Fokker was invited to Holland to demonstrate his first aircraft in his native town of Haarlem on 31 August 1911. It was a great success and his name became well-known in Holland.

Fokker moved to Johannisthal near Berlin in December 1912 and started his own company: Fokker Aviatik GmbH. (Note 8) He moved his company to Schwerin-Görries in Mecklenburg in the summer of 1913 and started a flying school on 1 July with a contract to train military pilots. The move to Schwerin-Görries was initiated by the Heeresverwaltung (Army Administration) because Johannisthal was overcrowded with aircraft factories. The town of Schwerin, anticipating a great future in aviation, offered excellent facilities.

In 1912, the Heeresverwaltung ordered two M.1 two-seat monoplanes developed from the Spin. Several were built for the Fokker flying school and some were still in service in 1917. One M.1 was demonstrated in Holland in 1913 even before the LVA was founded on 1 July 1913.

On 13 May, the Dutch factory pilot, Bernhard de Waal, with mechanic Kuntner, flew a M.1 from Johannisthal to Soesterberg, where they were enthusiastically welcomed. On the 18th, De Waal flew to Den Haag, but bad weather prevented any demonstration flights. On the 23rd, he was back at Soesterberg. Next day, De Waal and Kuntner departed, but crashed at Veenendaal after flying only some 20 kilometers. Crew and aircraft returned by train to Johannisthal.

The M.1 had, apparently, not impressed the Dutch authorities. Instead, the LVA selected the Farman HF.20, and later acquired the HF.22.

On 8 September 1916, a German Fokker A.I (factory model M.8, Bestellnr. A20/16, Werknummer 97) landed at Roosteren in Limburg, Holland, and was interned by the LVA. The pilot, Soldat Christian Fuchs, had got lost on a training flight. The plane was undamaged and test-flown at Soesterberg on 21 September. The C.LVA proposed to buy the plane and, on 22 February 1917, the Fokker A became LVA property for RM 20.000. It was given the Dutch serial LA34.

Unfortunately, the first LVA Fokker was short lived. On 24 March, lt. J.C.G. Duinker took off with the wind at his back and crashed the plane at Soesterberg. He was unhurt, but the plane and its Oberursel rotary were destroyed. The serial was later re-used on a Sopwith 1½Strutter.

The Fokker M.8 appeared just at the start of WW1. It was a shoulder-wing two-seater developed from the M.5 monoplane. It was a reconnaissance and training aircraft, and about 80 were built as the Fokker A.I. It was well suited for reconnaissance with large cellon windows under the wing. The A.I had excellent flying characteristics, was very popular among the German pilots, and served at the front until early 1916. The 80 hp Oberursel rotary was its weak point.

The A.I was also used at the Fokker flying school that was under contract to train pilots for the Fliegertruppe. When the flying school was closed on 20 December 1915, the Fliegertruppe took over the school's aircraft (serials S.1-S.22). After overhaul, they received the Bestellnummer A1/16-A22/16.

On 27 February 1917, the C.LVA asked the Albatroswerke GmbH. at Berlin-Johannisthal for a quotation for 10 single-seat fighters of the latest type. The Albatroswerke replied on 16 March that they worked exclusively for the German army. The C.LVA was advised to consult the Kriegsministerium, but the Albatroswerke added that that would likely be in vain.

However, on 8 April 1917, lt. Duinker went to Germany. It was quite usual for Dutch officers, with the assistance of the military attaché, to travel to the front to see the latest developments for themselves. Duinker stayed at the Hotel Bristol, Unter den Linden 5, Berlin, where Anthony Fokker permanently had three rooms close to the Centre of the German Government. Although there is no record of them meeting, Duinker and Fokker must have met. On 7 May, Duinker sent a handwritten letter from the Hotel Bristol to the C.LVA in which he said the Germans might be willing to sell to Holland 10 single-seaters with the 160 hp Oberursel rotary. The type was not mentioned, but he said they would be available at Schwerin (although the Fokker factory was not mentioned). The C.LVA advised the Opperbevelhebber (Supreme Commander) to ask the Kriegsministerium if they would be prepared to sell these aircraft with 10 spare engines and spare parts. Duinker returned to Holland on 25 May.

Lt. Duinker reported that the performance of the fighters offered was slightly below that of the latest Albatros single-seater, and that overproduction was a main reason for the offer. Thereafter, the transaction was quickly arranged.

The single-seater turned out to be the Fokker D.III. The C.LVA was informed on 14 June that the acceptance could start on 7 July, but that no guns and ammo belts could be provided. The departure of lts. W.C.J. Versteegh and Duinker was delayed until 8 August. They also had orders to discuss the purchase of 40 reconnaissance aircraft as well as parts and materials not otherwise available in Holland. Lt. Duinker returned on 16 September. During a visit with Fokker, they were photographed in front of an M.1.

Lt. Versteegh sent several reports to major Walaardt Sacré, and never forgot to add greetings to the C.LVA's wife, who was very popular among the LVA personnel. He also reported about the Fokker Dreidecker and its variants.

On 27 August, lt. Versteegh test flew six Fokker D.III's at Grossenhain and, on the 30th, four at Schwerin. The former were then sent for overhaul at Schwerin, and the latter were Reparaturflugzeuge (repaired aircraft).

On 1 October, lt. Versteegh arrived back in Holland with the ten D.III's. The first one was ready on the 10th and next day it was test flown by Lt. Versteeg, who at once performed several loops. The aircraft received Dutch serials F200-209. The total cost for the ten D.III's, ten spare Oberursels, and spares was *f* 368.823,50.

Lt.kol. Müller Massis, the Dutch military attaché in Berlin, who was involved in the transaction, reported on 15 September that he had asked for 6

more D.III with 6 spare engines. He also wrote that Holland could have 40 reconnaissance aircraft, on certain conditions. The 6 additional D.III's did not materialize. He was told that the Fokker D.III had been withdrawn from service and was no longer available. The batch of 40 reconnaissance aircraft, the Rumpler C.VIII, was ordered later.

Not much is known about the service of the D.III in Holland. On 26 November 1917, the C.LVA wrote in his diary that lts. A.K. Steup, G.A. Koppen, F.A. van Heijst, and C. Land flew the type. The latter performing loops. On 24 January 1918, lt. Duinker crashed a D.III. Other pilots who flew the type were sgt. P.J. van der Griend, sgt.maj. J.W. van der Drift, and lt. H.G.B. de Kruijff van Dorssen.

In 1918, the D.III was used for met flights, but proved unsuitable as it was difficult to install the met instruments at a location free of exhaust gases.

A detachment of 4 Rumpler C.VIII and one D.III was based at Ede for tests with the Groeneveld Meijer bomb gear in May 1919. A photo series, made at Gilze Rijen, probably in the summer or fall of 1919, shows one D.III. One D.III collided with Trompenburg V.2 nr. 66 on the ramp at Soesterberg. Whether the D.III flew at the ELTA is not known.

The D.III also served at Schiphol, one being F203. A logbook report mentions a flight at Schiphol with Fokker single-seater "Kees" (short for Cornelis) on 1 December 1920. This must have been a D.III. We can assume that the type was withdrawn in 1921, by which time the Fokker D.VII and C.I were in use. Because these aircraft used in-line engines, training on rotary-engine aircraft was of little use by then. Yet, a note in an inventory book says that F204 was w/o in IV/1927.

The D.III's were: 350, 379, 1607, 1619, 2965, 2983, 3022, 3024, 3026, and 3028/16, with Werknummern resp. 700, 666, 994, 1007, 1335, 1353, 1992, 1394, 1396, and 1398. (350/16 was the prototype which, remarkably, had a higher Werknummer than the first production aircraft). Whether the LVA aircraft were re-numbered in the same order as the German serials is not known

On 18 December 1917, AEG C.IV(Fok) 277/17 was interned at Heithuizen. The damaged plane was ~~being~~ flown by Fw. Willy Biegel (pilot) and Lt.d.R. Albert Friedrich Max Fuhr (observer) from the Flieger Beobachter Schule Köln (Flying and Observer School). This AEG belonged to the first order, Bestellnr. 240-439/17, and had Werknummer 1547. The plane had been accepted on 13 September 1917 and was delivered on 28 September from Schwerin.

This AEG, which contained a (very welcome) wireless set, was repaired by the LVA and received the serial AEG403. On 12 April 1918, the C.LVA made a proposal to buy the AEG for RM 30.000. But, on 27 September 1918, the AEG crashed at Soesterberg and was destroyed; the crew, lt. N.T.van der Stok and mec. A.C.Recourt, were injured. On 28 October, the proposal to buy the plane was withdrawn. The AEG was scrapped and the 160 hp Mercedes stored.

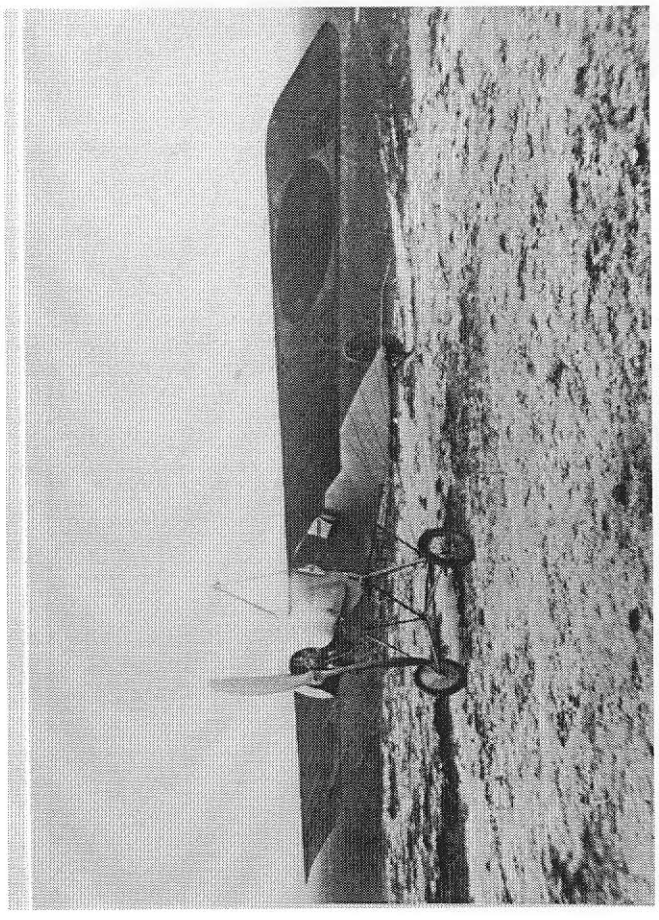
By 1917, Fokker fighter aircraft were now surpassed by other types, especially the Albatros. Fokker received two orders, each for 200 aircraft, for license production of the AEG C.IV reconnaissance/training aircraft. Fokker got the order since the AEG C.IV had welded metal fuselages, similar to the Fokker-designed aircraft. Fokker complained, but his factory was kept busy and he made a profit. The second order for 200 was partly cancelled in 1918 since the factory was needed for the new Fokker D.VII fighter.

By that time, an Albatros-built Fokker D.VII had been interned in Holland. Fokker D.VII(Alb) 5584/18, flown by Uffz. Alfred Baum of the Marine Jagd Stab IV at Coolkerke, landed at IJzendijke on 15 October 1918 with engine trouble. The plane was brought to Soesterberg, overhauled, and test flown on 9 November by lt. Versteegh. The LVA serial may have been F227. Nothing is known about its further use. This D.VII was not bought and was stored in 1919.

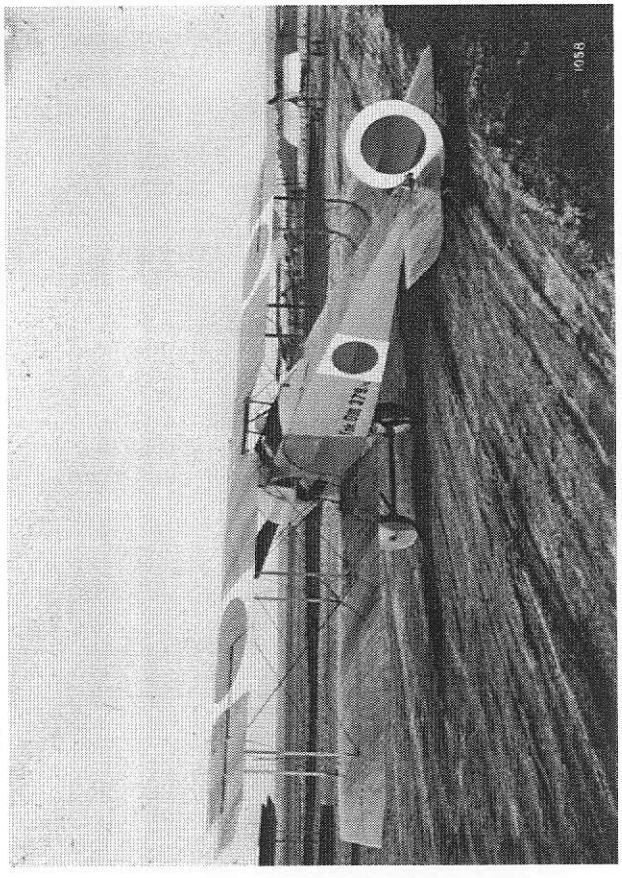
After the Armistice, the Fliegertruppe units on the Western Front flew to their home bases in Germany. Several of these aircraft landed in Holland. Since the war was over, the crews were not interned and they were allowed to continue their journey, but the aircraft were requisitioned by the LVA and stored. (Note 8)

On 13 November, five D.VII along with one Albatros (possibly a D.V) landed at Stein in Limburg. They were stored at Schiphol, but never bought. The salvage party was commanded by lt. A. Plesman, later to become the director of KLM.

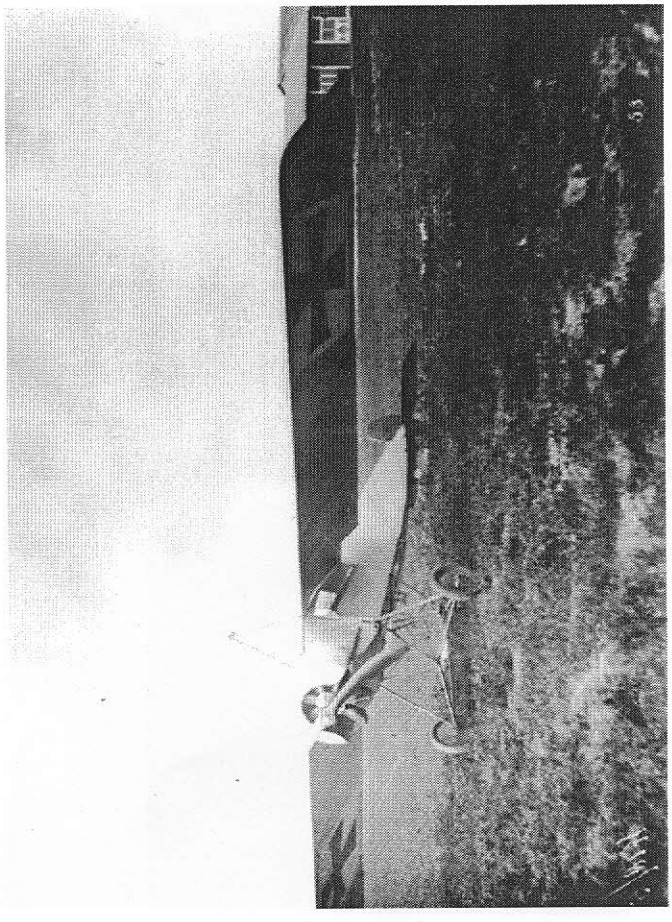
These aircraft, probably from Jasta 63w, were ~~c/n~~ ***s/n*** 2176, 4000, 4001, and 4144/18, built by the Ostdeutsche Albatros Werke and 4293/18 built by



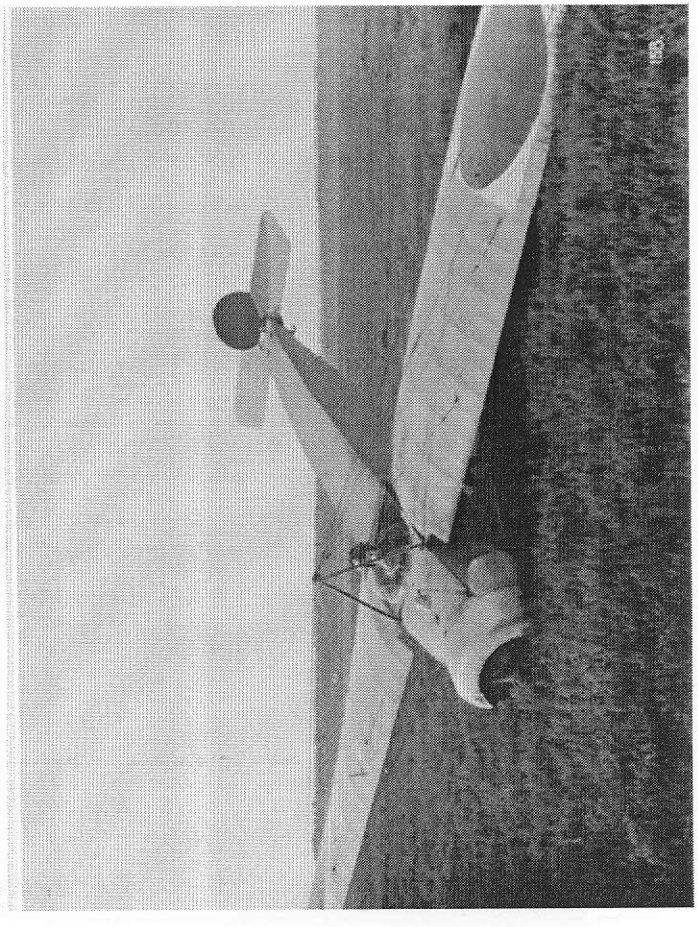
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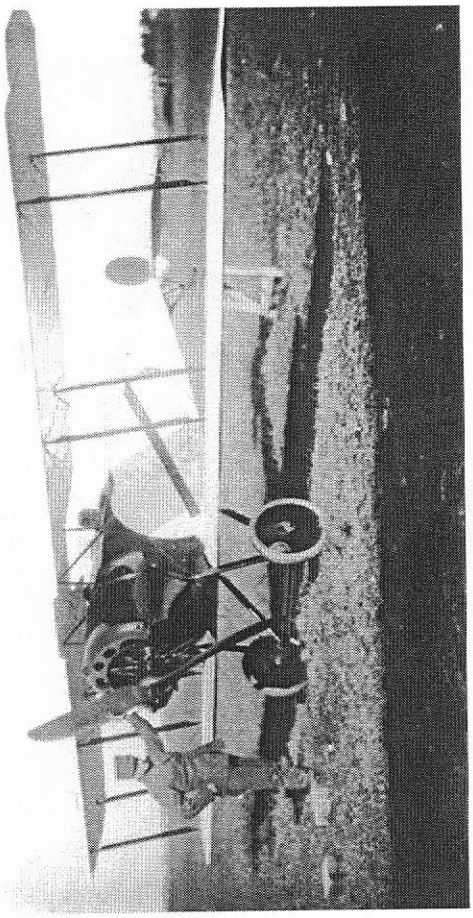
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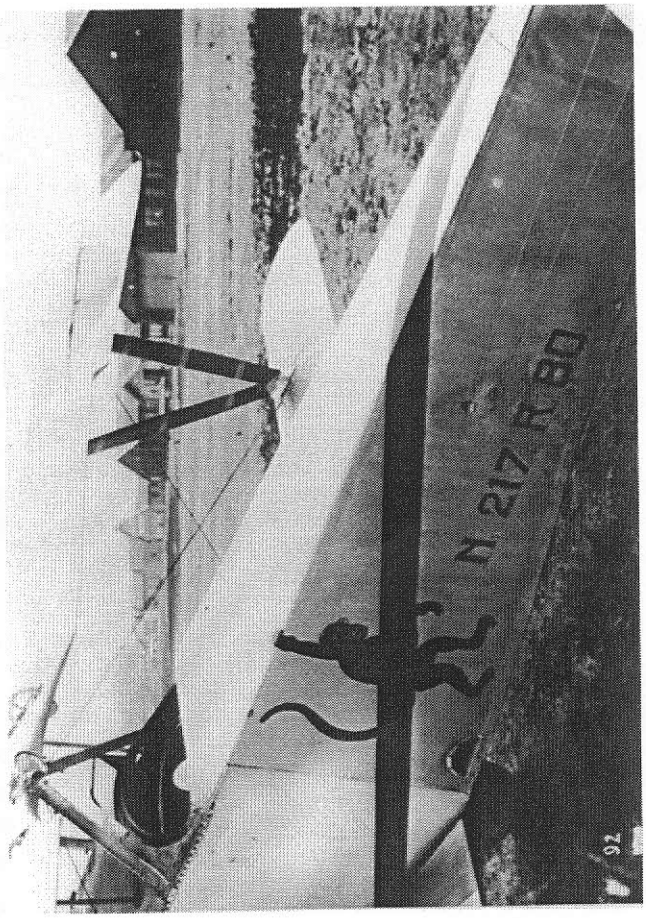
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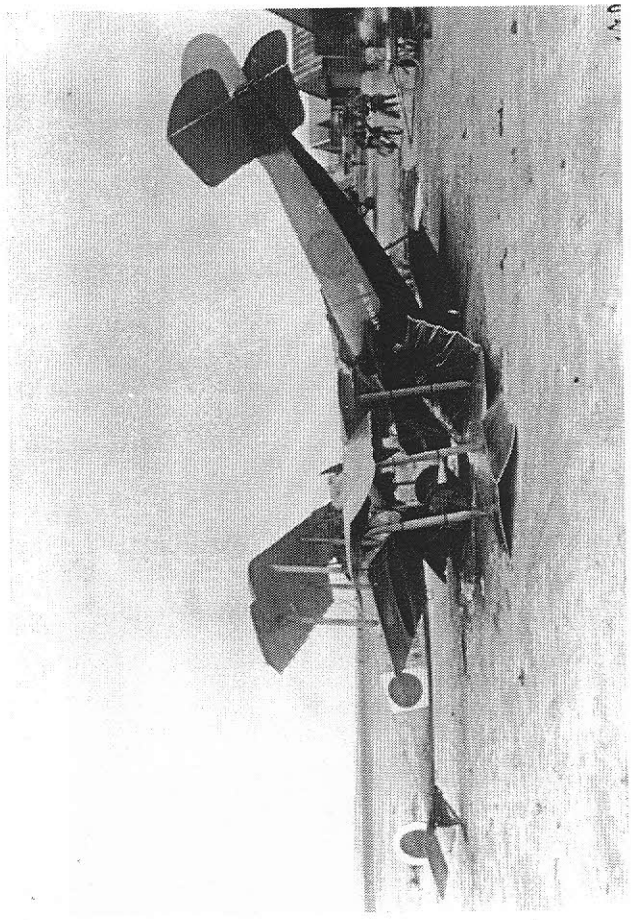
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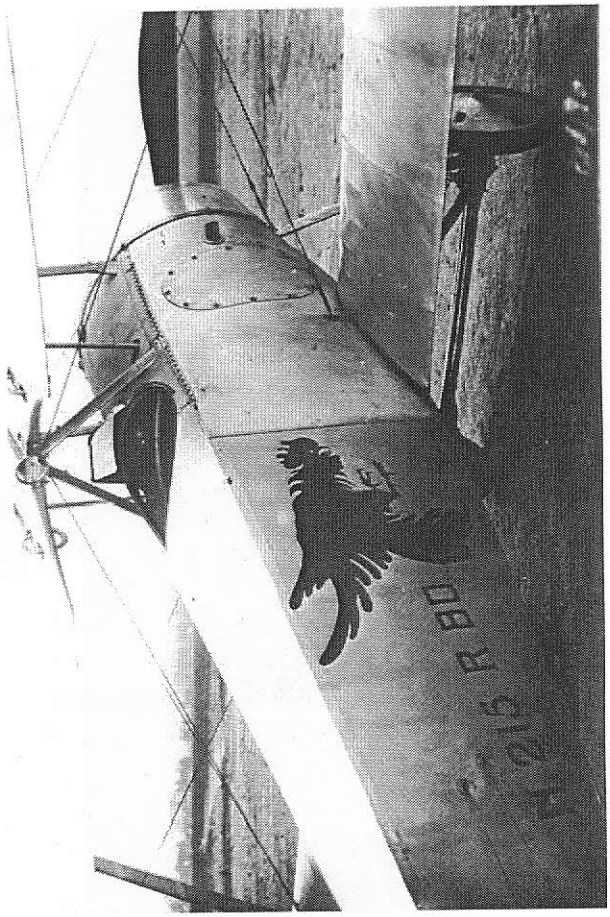
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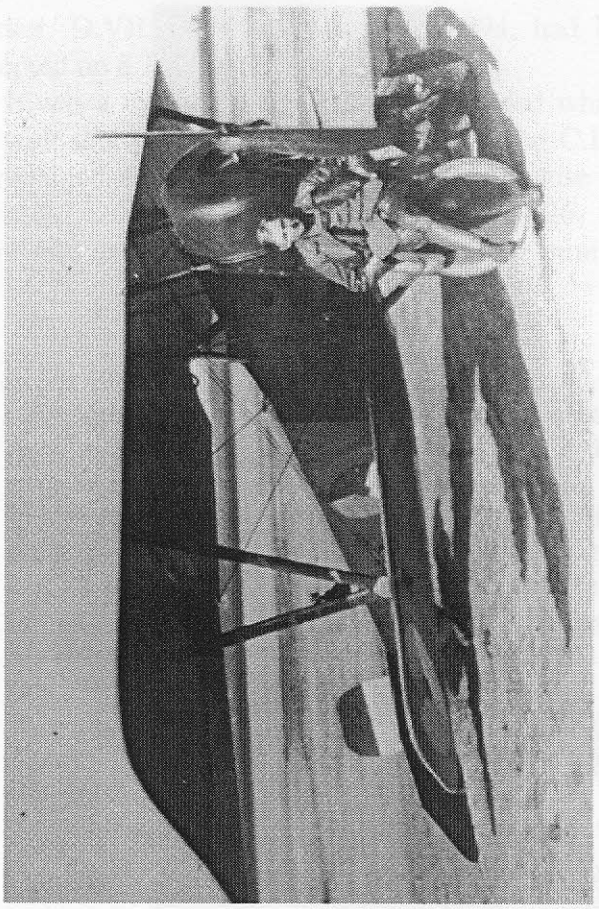
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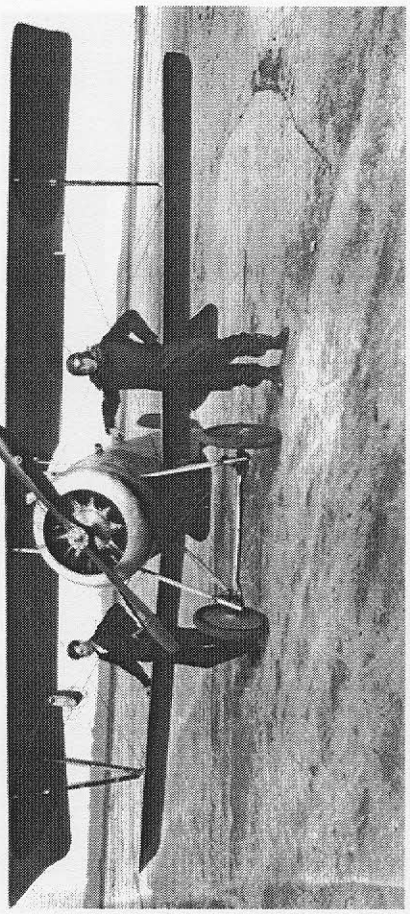
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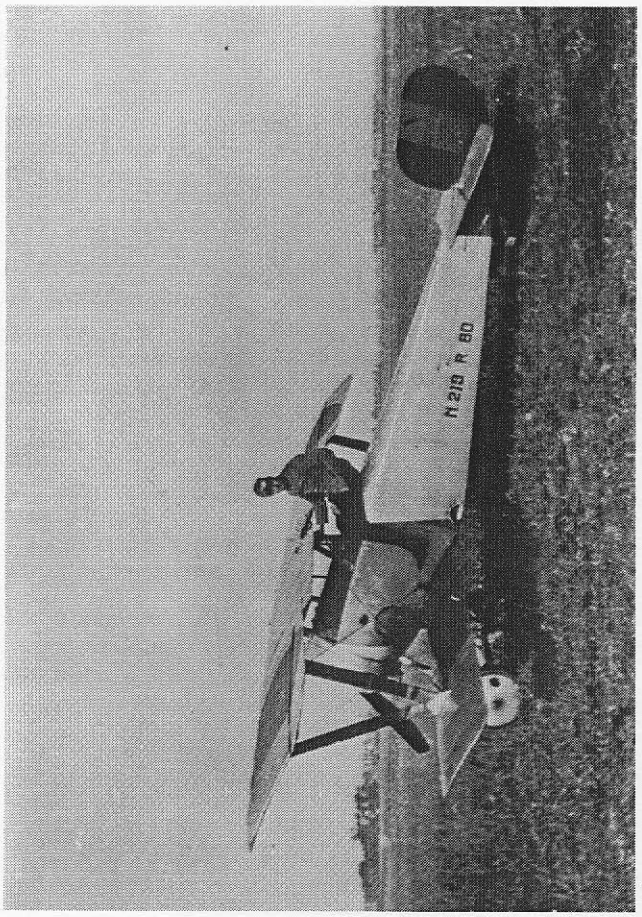
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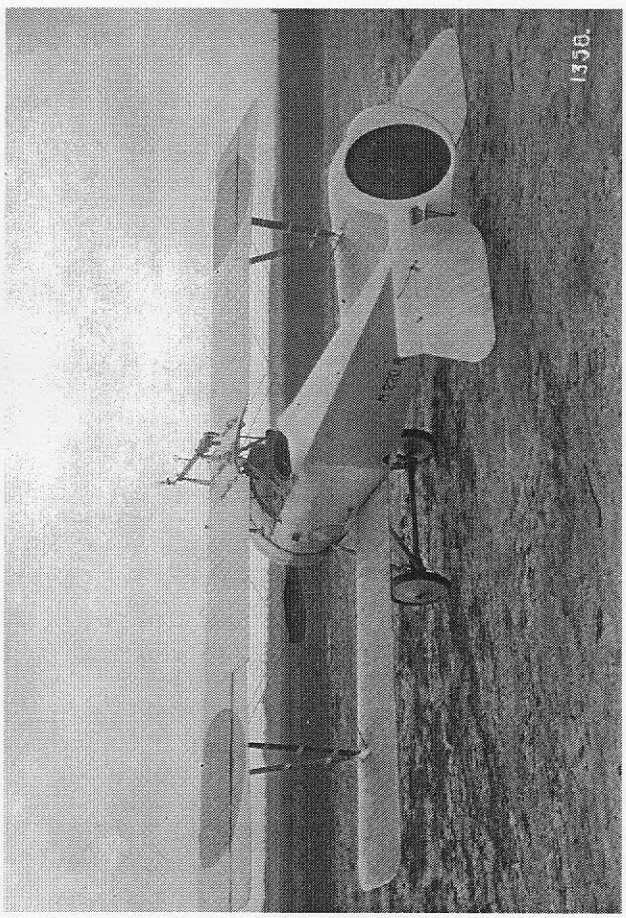
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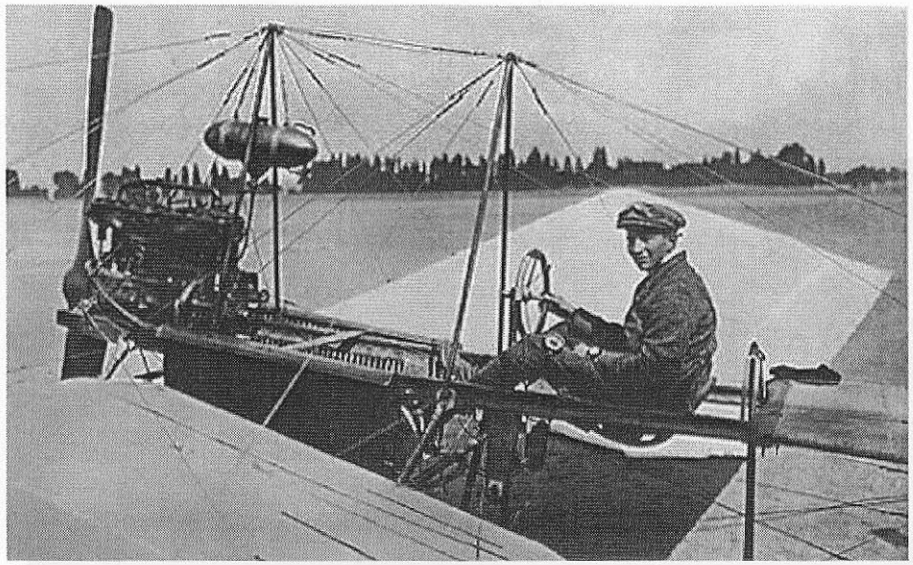
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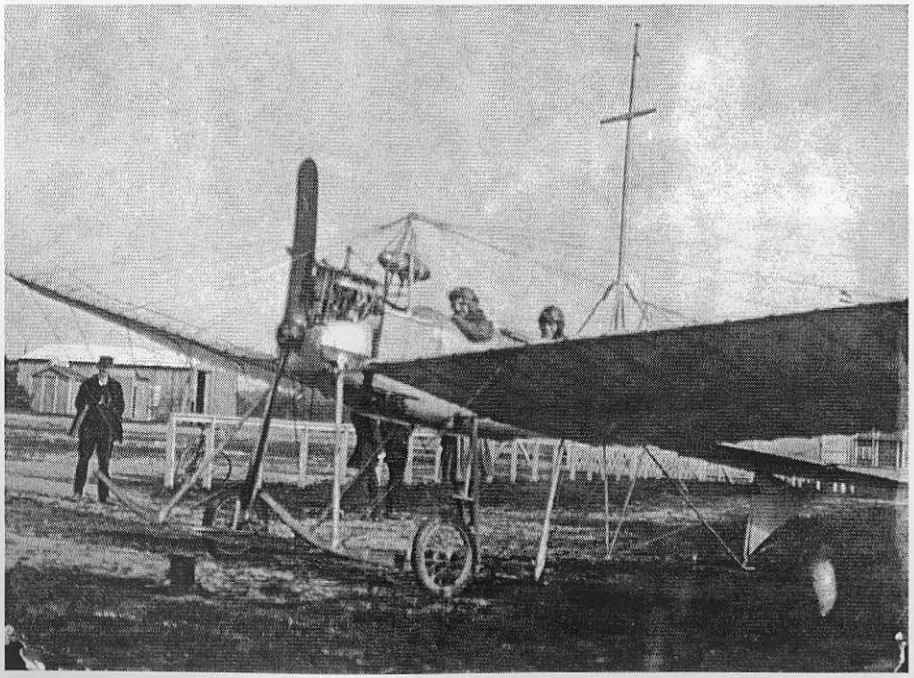
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19.



20.

Fokker. D.VII 4293/18, with Wnr. 2994, had been accepted on 8 July 1918.

It was a long time before it was decided what to do with this German property. In 1922, the C.LVA complained and urged that they be sold because they occupied a lot of space. Ultimately, in 1926, they were sold as scrap. The profits, by that time minimal, were used in the settling of the interning costs with Germany. Germany paid *f* 5 per hangar per day for the storage (three hangars).

F. Gerdessen (SAFCH #12), The Netherlands.

Notes

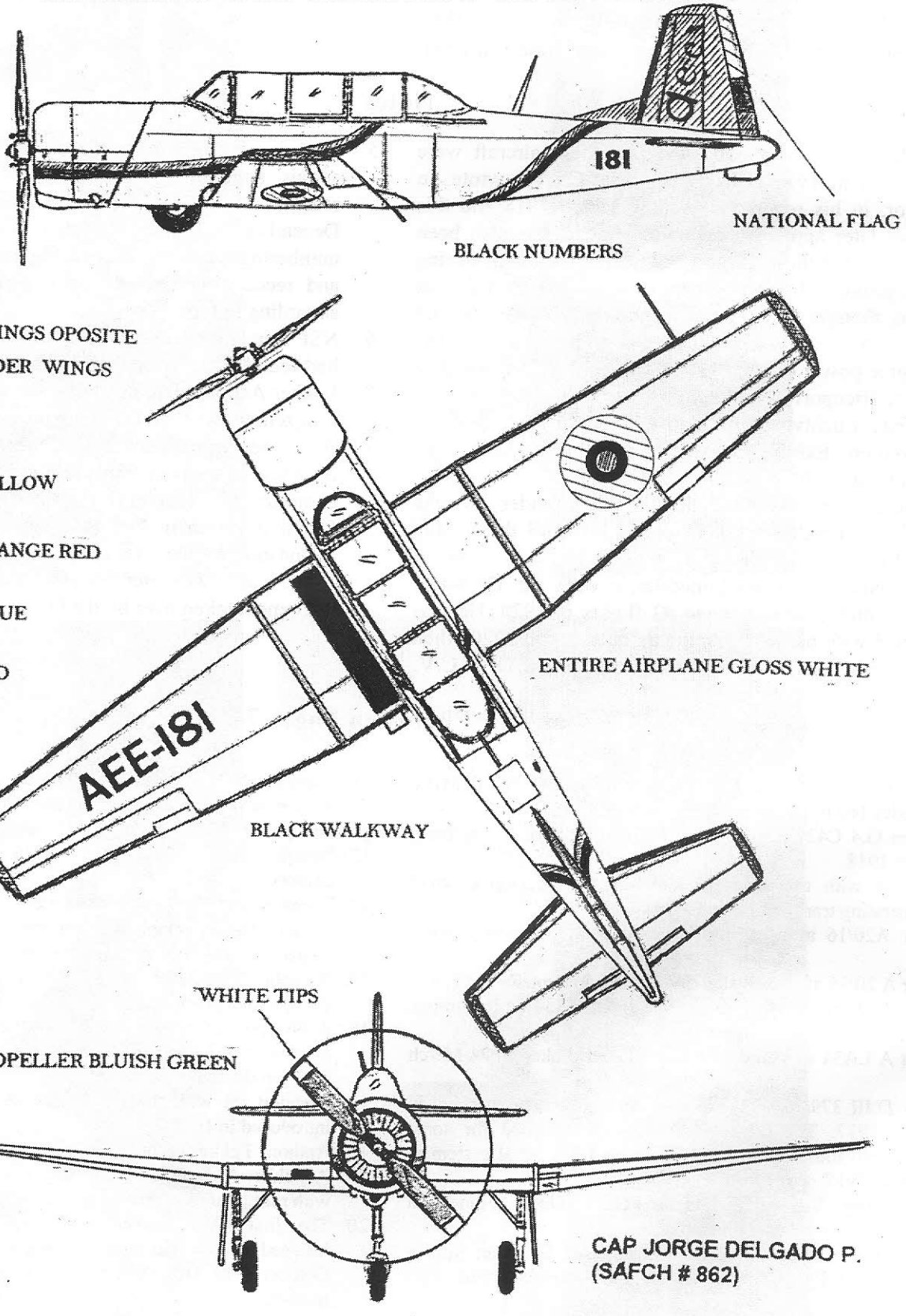
1. It has often been published that these aircraft were ordered in 1915. This is what the C.LVA wrote, in error, in his report for January-March 1918 and this error later appeared in publications. It has also been written that these aircraft had suffered damage during the prolonged transport, but this is not correct. It was long thought that these Nieuports were types 11 and 17, but scrutinizing the photos and considering the engine power (80 and 120 hp) it is quite clear that they were Nieuport 21 and 23.
2. Eerste Luchtvaart Tentoonstelling Amsterdam (First Aviation Exhibition Amsterdam), 1 August - 14 September 1919.
3. These meteorological flights, often under adverse weather conditions, were continued until the 9 May 1940.
3. E.J. Need was a wachtmeester, cavalry sgt. He was a keen met pilot and made 92 flights in 1920. He was killed with his two passengers on 22 June 1920 when he crashed as a barnstorming pilot in a civil DFW C.V.
5. LVA aircraft had initially more or less chronological serials beginning with LA1. In 1917, LA50 was reached and the system became impractical. In December 1917, a new system was introduced with numbering according to type. Fighters in the 200 series and recce aircraft in the 400 series, with a prefix according to type.
6 NSP stands for Nieuport-Spijker. The Spijker brothers had founded the Trompenburg factory.
7. Fokker Aeroplanbau mbH and in January 1916 Fokker Flugzeugwerke GmbH.
8 After the Armistice, the internees were set free and departed as soon as transport could be arranged. The countries of origin were responsible for the costs the Dutch government had experienced: accommodation of and care for the internees, storage of equipment, etc. These costs were settled after the war, partly with equipment taken over by the Dutch government.

Captions for Photos on Pages 74, 89-92

1. AEG C.IV 277/17 (Wnr. 1547) with LVA serial AEG403M160 (Mercedes 160 hp) at Soesterberg, summer 1918.
2. Caudron G.4 C427 R2x80 (2 Le Rhône 80 hp) at Soesterberg, summer 1918.
3. Fokker A with the Wnr. 97 in white on the engine cover demonstrating transport behind a car.
4. Fokker A20/16 awaiting repair/overhaul at the factory, early 1916.
5. Fokker A 20/16 after arrival at Soesterberg in September 1916.
5. Fokker A 20 in LVA markings. The serial LA34 on the orange rudder.
7 Fokker A LA34 was crashed by Lt. J.G.C.Duinker on 24 March 1917.
8. Fokker D.III 379/16 Wnr. 666 after assembly at Soesterberg in October 1917. The German serials were retained for some months until the introduction of the new LVA serial system in December 1917.
9. Trompenburg V.2 SP66 and a Fokker D.III collided at Soesterberg. SP66 was delivered in late 1919.
10. Fokker D.III F203 at Schiphol with kpl.mec. Dirk van Rijn in the cockpit. Dirk van Rijn left the LVA in September 1920.
11. Nieuport 21 N215, summer 1918. On several aircraft some artwork was done. This was not seen after 1920.
12. Nieuport 21 N217, summer 1918. Also with artwork.
13. Nieuport 21 N219R80, summer 1918. Partly in the original colours.
14. Trompenburg-Nieuport 11 with red-white-blue roundels and rudder (factory emblem overpainted) with sgt. G.M.H. Frijns who was later a well-known KLM pilot.
15. Nieuport 23 N220R120 (Le Rhône 120 hp), in summer 1920, with a machine gun on the top wing.
16. A Nieuport 23 meteo aircraft, in 1920, with crack meteo pilot wmr. E.J. Need at left, and the instruments container between the starboard wings.
17. Nieuport 23 with the red-white-blue markings that were introduced in 1921.
18. Anthony Fokker in (or is "on") one of his first Spinne, 1911.
19. A Fokker M.1, flown by factory pilot B. de Waal (front) with mec. Kuntner, arrived at Soesterberg on 13 May 1913.
20. The first LVA Fokker D.VII, 5584/18(Alb), was this interned after it had landed in a field at IJzendijke on 15 October 1918. Uffz. Alfred Baum landed because of engine trouble.

NANCHANG CJ-6

AVIACION DEL EJERCITO ECUATORIANO



The Nanchang CJ-6 in the Ecuadorian Army Aviation

Jorge Delgado

The Nanchang Aircraft Manufacturing Company of China produced the CJ-6, a license-built version of the Russian Yak-18A. This Great-War bird has been used by many of the former Soviet and Communist Bloc Countries for training military pilots and is currently in use by the Peoples Liberation Army Air Force of China. The CJ-6 provides a good platform for the pilots training as a primary step transition to jets.

On 22 August 2001, an agreement was signed in Beijing between the ministries of National Defense of the People's Republic of China and Ecuador. This agreement provided for free military aid from China to Ecuador with a value of 8.000.000 yuanes (US $960,000). On 30 December 2003, a protocol (N020.03B:33-JY139) was signed in Quito finalizing the agreement. The shipment with arranged by BIL No DAL01, COSCO SHIPPING company Ltda.

On 24 June 2005, there arrived in Ecuador on the freighter *Lu-Shan* the following: two Nanchang CJ-6, one reserve engine, nine ground facilities for the airplanes, two manuals (in English), 49 facilities for terrestrial securing, and two sets of spare parts for the CJ-6. The aid agreement included the training in the new equipments of four officers and three technicians of the Ecuadorian Army.

This material was held up by customs officials for several months. It was only after the intervention by the Minister of Defense, Oswaldo Jarrfn, that allowed the donation to clear customs.

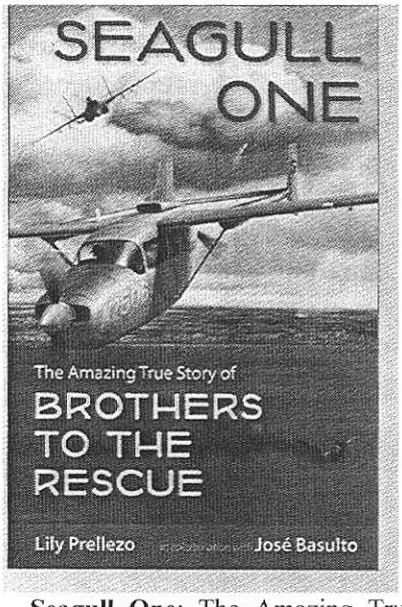
The planes were delivered on 11 May 11 2006 to Air Group N° 44 of the Brigade Selva N° 17 Pastaza. Thus, Ecuador became the only user of the CJ-6 in Latin America. The two CJ-6 were given serials AEE-181 and AEE-182.

The acceptance ceremony, began at 10h00, and was attended by the Chinese Ambassador, Liu Liuquin; the head of the Joint Command of the Ecuadorian Armed Forces, General Nelson Enrfquez; and the Army Commander, General Robert Tandazo. During the ceremony, the Chinese ambassador emphasized the will of his country to continue collaborating with the Ecuadorian armed forces in the delivery of military aids.

The Nanchang CJ-6 were blessed by the military bishop, Miguel Aguilar.

CAP. Jorge Delgado P. (SAFCH # 862), Ecuador.

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Seagull One: The Amazing True Story of Brothers to the Rescue, by Lily Prellezo in collaboration with Jose Basulto. University Press of Florida. 336 pp. 6 by 9 inches, 141 b/w photos. ISBN 978-0-8130-3490-41 Cloth $24.95

There was a time in Miami when it seemed impossible to go through a week without news coverage of the men, women and children escaping Cuba and being pulled off of makeshift rafts in the middle of the Florida Straits. One out of four did not survive the dangerous journey; the others barely hung on with little food and water. Most of the lucky ones were saved by a group of volunteers who called themselves Brothers to the Rescue (BTTR).

Seagull One is the never-before-told story of the men and women representing nineteen nationalities who came together to fly in rickety Cessnas over the Florida Straits to search for rafters fleeing Communist Cuba. It is a fascinating account of how Jose Basulto, a Cuban exile and Bay of Pigs veteran, founded BTTR with the humanitarian mission of saving the lives of the desperate souls willing to brave the ocean in pursuit of freedom. The group's tactics were sometimes controversial, including protests against both the Cuban and US governments, yet the organization managed to save over 4,200 people they would seldom, if ever, meet.

Seagull One also records the infiltration of two spies, one who was a double agent working for the FBI. Together these two volunteers collaborated with the Castro government in planning the shoot down over international waters of two unarmed Cessnas flying a humanitarian mission on February 24, 1996. The cold-blooded murder of four innocent men (three American citizens and one legal resident) led to significant changes in US-Cuba relations.

[Ed: Now available from University Press of Florida is the paperback version of Dan Hagedorn's *Conquistadors of the Sky, A History of Aviation in Latin America*. $29.95. ISBN 978-0-8130-3249-8.]

Two Japanese Airmen over the Khalkhiin-gol in 1939

Denys J. Voaden

Japan's ambition to gain resources from eastern Siberia - exacerbated by her perceived poverty in power sources and industrial minerals - had long been in mind, at least since the Russo-Japanese war of 1904-1905 and the annexation of Korea in 1910. Japanese troops were the last foreign soldiers to leave Vladivostok during the Russian Civil War (on 25 October 1922) and, of course, they continued to occupy northern Sakhalin and other islands until 1945.

The culmination of this expansionist dream came with the attempted invasion of Mongolia in May 1939. Japan's defeat in September spelled the end of such adventures. However, although the "Nomonhan Incident" is usually regarded as a serious plan for conquest launched by the Kwantung Army (Manto-gun), it has also been seen as the escalation of another border clash.

At least; this was how it appeared to two Japanese fighter pilots who took part in the battles, in their talks with the writer in 1964.

The main air unit of the Kwantung Army in Manchukuo in the spring of 1939 was the 2nd *Hiko-shidan* (air division) comprising ten *sentai* (wing) with a total of 500 aircraft. In Korea there was the 2nd *Hiko-dan* (air brigade) comprised of the 6th, 9th, and 65th *sentai*. Overall command of the Japanese aviation in Manchukuo was by Lt.-General Giga Tetsuji, replaced in September by Lt.-General Ebashi Eiji.

The participants whose experiences and views are given here were Captain Kawada Takeo, who was a *chutai* leader from December 1938 to September 1941 in the 33rd *Hiko-sentai,* and Lt.-Col. Imagawa Issaku, commander of the 59th *Hiko-sentai* from July 1938 to December 1939.

Captain Kawada Takeo

Captain Kawada Takeo's service at Nomonhan was from late August to 16 September, a rather short time. His 33 *sentai* was formed in 1938 in Manchukuo and used bases at Hailar and Tobos during the battle. Tobos was a very simple aerodrome south-south-east of Buir Nuur; with refueling carried out each day at Goshaku. The field aerodromes were grass surfaces with tents for the personnel.

The 33 *Hiko-sentai* flew the Ki-10 or Kawasaki Type 95 Fighter capable of a speed of 400 km/hr and armed with two 7.7 mm. machine guns. Although it was a biplane with fixed undercarriage, it was very maneuverable. Its antagonist, the Soviet 1-15bis, was slightly slower at height, but it had four machine guns.

A chance for comparison with the I-15 [probably 1-15bis] came when a Soviet defector flew one, with full ammunition; to the Japanese side. Kawada test-flew this airplane and engaged in mock combat with a Ki-10 flown by his young staff pilots -- he won, but concluded that performance and fire-power were much the same for these airplanes.

Kawada mentioned that the throttle's operation was "opposite" to that of Japanese aircraft. On one occasion, a young Japanese pilot gave the I-15's engine too much power! The aircraft survived and both the I-15 and an I-16 were tested in Japan proper.

The 33rd *Hiko-sentai* had 40-45 aircraft in three squadrons; Kawada was in command of the 2nd *chutai*. Average serviceability was about 75%. There were few maintenance problems -- occasionally cracks developed in the crankshaft of the Ha-9-II 720 hp engine.

The weather during his time of service was "quite fair" -- the grass fields did not give rise to dust, but mosquitoes were very bad, and often covered the windscreens up to an altitude of 100 m after take-off.

His duties as *chutai* commander were to make two sorties each day against enemy fighters and enemy airfields to prevent Soviet bombers from attacking the Japanese lines of communication from Tobos to Goshaku and to the front at the river. However, he was ordered not to cross the frontier. Enemy troops and their escorts and enemy communications were other targets.

The rule of crossing the frontier did not always hold, of course. The ground forces crossed to the west of the Halh river and dug in on the Bayan Tsagaan hills. On 2/3 July, there were air raids against the important Soviet aerodromes at Tamsak Bulak and Bayan Tümen [now Choibalsan].

A sortie was made one day at noon to Bayan Tümen. Flying at 3000 meters in a V-formation with six of his unit, he observed some 40-50 aircraft on the ground. In a dog-fight with a large number of

pursuing I-16s, which took place on the Japanese [Manchukuoan] side of the border, one of the Ki-10s was shot down. Kawada claimed 5 enemy aircraft in this engagement; his aircraft was hit by 10 bullets in the engine and rear fuselage; many of them were incendiaries. In this combat, Lt. Harada was shot in the lung and died three hours after making a forced landing at Harun airfield. Sgt. Ishikawa fought very skillfully to protect the others, but was wounded and had to make a forced landing on a road. However, he died ten hours afterward.

Of the seven aircraft in this engagement, only two were camouflaged - mixed green and brown patches on upper surfaces, light blue beneath. The non-camouflaged aircraft were light grey.

Captain Kawada said that he knew little or nothing of Mongolian aviation, and thought that all his opponents were Russian pilots. He never attacked any enemy bombers.

His view of the I-16 was that it was difficult to attack because of its high speed, but, when caught, it was easier to shoot down because of its large turning radius. Later he continued to fly many hours on the Ki-10, which of course he considered to be superior to the I-16.

Lt.-Col. Imagawa Issaku

The second of the Nomonham pilots who, in 1964 recorded his experiences, was Lt.-Col. Imagawa Issaku, who commanded the 59th *Hiko-sentai*, that was equipped with the Nakajima Army Type 97 Fighter (Ki-27). He reached the front on September 8 at Hailar. The unit was based at Hailar and although there were about five simple field aerodromes between the main road and Khalkhin-gol he preferred not to use them and always refueled at Hailar. He said that the field aerodromes had no special system of designation, but were named after any nearby village -- for example, Shogunbiao.

His impression was that the conflict escalated almost accidentally from the early border incidents in May when some nomadic Mongols changing pastures with the seasons crossed the border claimed by Manchukuo. Nomads were sometimes arrested by Manchukuoan forces, who subsequently retired from near the border, but Japanese cavalry from Hailar was sent to the front.

In general, there was very little support from the homeland and most resources came from Manchukuo. Although both sides carried out aerial reconnaissance, very little intelligence information was available except on the eastern Manchukuo border [presumably the border with the USSR], and there was scanty knowledge of Mongolia.. One exception was at the time of a heavy Japanese bomber raid on the main Soviet airfield at Tamsak Bulak, where Japanese reconnaissance airplanes overflew the target before the attack. Imagawa himself did not attack any Soviet bombers and knew or saw nothing of the Manchukuoan air force. Further, he knew nothing of Mongolian aviation and considered all opposing aircraft to be Russian-operated.

He stressed that the Japanese air forces did not play an aggressive role [of course, as a fighter commander his main duty was defense and interception] and were not reinforced with new units, whereas the Russians "changed their units very often" -- presumably reflecting the introduction of new and improved basic types (I-153, I-16-M-62, etc.).

As for Japanese knowledge of Soviet fighters, Imagawa said that he examined the I-15 and I-16, but did not fly them himself. One Russian pilot defected with an I-16 and slightly damaged the undercarriage, but this was repaired and the airplane was test-flown. Later, in 1941, it participated in mock dog-fights with the Ki-43 (Nakajima Army Type 1 Fighter, Hayabusa) and the Ki-44 (Nakajima Army Y Type 2 Fighter Shoki) in Manchukuo. The I-16 was then sent to Honshu. [Some dates are suspect here as the Ki-44 entered service in 1942.]

The general view of Russian aircraft was that the I-16 was impressive in performance, very simple in layout and construction, with level speed similar to Japanese fighters, but it had a rapid dive rate. It was noted that progressive changes to armor and armament took place during the course of the campaign. Of his own Ki-27 monoplane fighter, Imagawa had a good opinion -- the only faults were in the small caliber [7.7 mm] guns and the very light armor protection.

Lt.-Col. Imagawa left the 59th *sentai* before the attack on Pearl Harbor. He later flew the Ki-43, served in Burma, and eventually was in charge of the Tokyo Test Unit that evaluated all Japanese fighter aircraft used in the Pacific War.

Denys Voaden (SAFCH #1483), USA.

The Paraguayan Air Arm's Avro Anson Mk.V

Antonio Luis Sapienza Fracchia

Only one Avro Anson saw military service in Paraguay.. In March of 1947, a cruel revolution started in Paraguay against President General Higinio Morínigo's government. Most of the Army Units, the Air Arm, and the Navy formed a new revolutionary government in the northern city of Concepción. Most flyable airplanes of the Air Arm flew to that city leaving Morinigo´s government without any aerial support.

Regarding the Air Arm, the government in Concepción organized the Revolutionary Air Arm while Morinigo´s followers tried desperately to count on some airplanes which were in maintenance at that time of the revolt. The situation for Morinigo´s government was so critical that he decided to buy a few aircraft in Argentina, but funds were limited. Finally, he could only get a couple of civil Vultee BT-13s and an Avro 652A Anson Mk.V.

The Paraguayan Anson was a Canadian-built example whose c/n was MDF-19. It first saw service in the Royal Canadian Air Force (RCAF) with the serial 11648. Then it was transferred to the civil market as CF-ELT. It was later sold to Argentina where it received civil registration LV-ADI and was owned by Jorge Biraben.

In July 1947, this Anson was bought by Morinigo's government. The Anson was crewed by a retired Argentine Navy officer named Scaso who also gave training to some Paraguayan pilots. The Anson received the military serial T-7. Together with a couple of Beech UC-45F and the Caproni Ghibli, the Anson was intensively used to transport ammunition, bombs, weapons, medical supplies, food, and general supplies to the north front. When the revolutionary troops decided to conquer the capital Asunción, all transport planes urgently flew the necessary supplies to equip the Army units still loyal to Morinigo´s government defending the city.

On more than one occasion, the Anson was used as a bomber. The side door was removed and bombs were just pushed out of the plane by hands!

The revolutionary troops were finally defeated and General Morinigo continued ruling the country for more than one year. The Anson remained in flyable condition until 1948 when it was withdrawn from service due to the lack of spare parts.

Colors and Markings

The Paraguayan Anson was kept its overall metal color scheme. It had a red cheatline along the fuselage windows. After the Revolution of 1947, it received the standard Paraguayan roundels in the four wing positions. The Paraguayan flag colors were painted in the rudder, with a yellow star on the white stripe. The serial T-7 was painted on both sides of the fuselage in black.

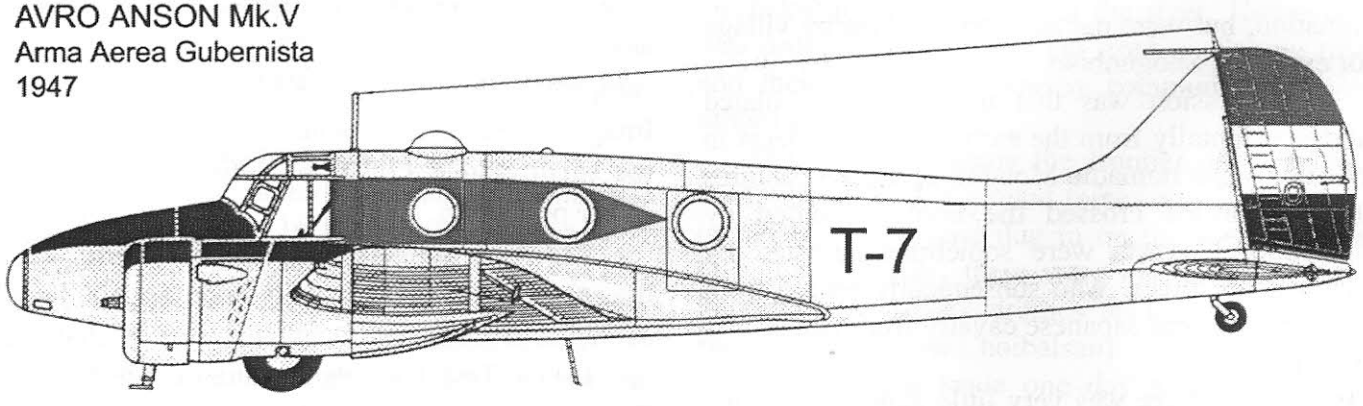
Acknowledgements

The author would like to thank Col.Av. (Ret) Agustín Pasmor for the precious information on this aircraft. Thanks are also expressed to the Argentine historian Francisco Halbritter and the personnel at the Museum of Military History of the Ministry of Defense for the pictures.

Captions for Photos on Page 99

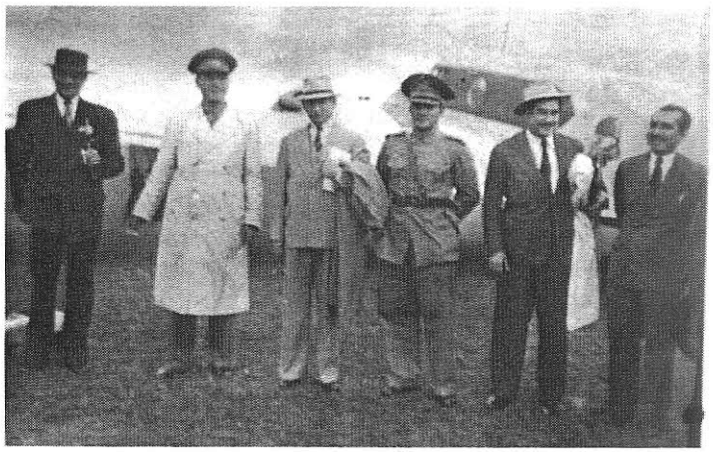
1. Avro Anson Mk.V gubernista: This picture was taken when the Anson of our story was registered in Argentina as LV-ADI. Photo copyright: Francisco Halbritter.
2: Some military and civil authorities of Gen. Morinigo's government posing in front of the Anson Mk.V at Ñu-Guazú AFB in July, 1947. Photo copyright: Museum of Military History. Ministry of Defence. Paraguay.
3. Civil authorities boarding the Anson Mk.V in July, 1947 at Ñu-Guazú AFB. Photo copyright: Museum of Military History. Ministry of Defence. Paraguay.

[Editor's note: Notice that the cheatline is different on the aircraft photographs in Argentina from that on the aircraft photographed in Paraguay. Tony assures me that these photos are of the same aircraft.]

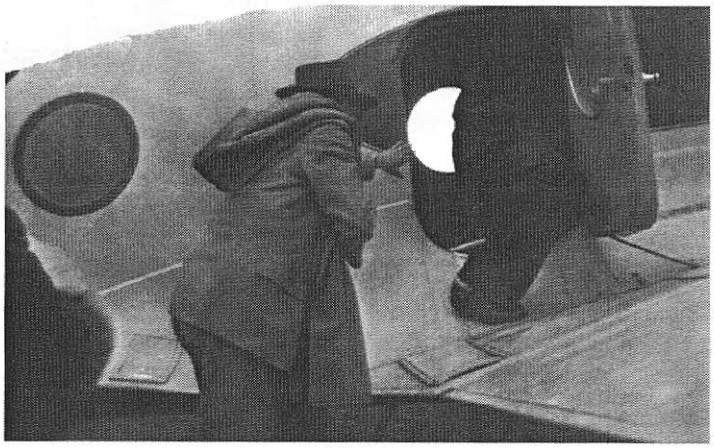




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Letov Š-16 v zahranicnich sluzbach; Letov Š-16 in Foreign Service, by Marcel Kareš and friends: Moshe Bukhman (Israel), Gunars David Zulis (Canada), Mehmet Halûk Sevel (Turkey), Šime Oštrić (Serbia) and Peter Šumichrast (Slovakia). 170 mm by 240 mm, 232 pages, hardcover, 327 b/w photos, and 6 color plates.

The chapter heading will give you some idea of the content: I. Preface (22 pages, 30 photos). II. Letov Š-16L in Latvian Air Force (85 pages, 134 photos). III. Letov Š-16T in Turkish Air Force (58 pages, 88 photos). IV. Letov Š-16J in Yugoslav Naval Aviation (20 pages, 30 photos). V. Letov Š-16 in Slovak Air Force (12 pages, 17 photos). VI. Letov Š-16 in German Luftwaffe (2 pages, 2 photos). VII. Technical Details (17 pages, 20 photos).

There are 6 pages of beautiful color profile drawings (2 Latvian, 1 Turkish, 1 Yugoslav, 1 Slovak, & 1 Luftwaffe). The text is entirely in Czech with a 3-page English summary. The photos are mostly large and all well reproduced.

The price is 409 Czech Crowns (CZK). The exchange rate, as of October 2010, is 1 USD = 17.6 CZK, 1 € = 24.5 CZK, and 1 £ = 27.7 CZK). So one book: ca 24 USD, 17 €, 15 £. Priority/certified postage to USA and Canada is 263 CZK (ca 15 USD); priority/certified postage for Europe is 198 CZK (ca 9 € or ca 8 £).

Payment can be made by sending Marcel the money in an envelope by priority/certified postage. He can also receive a cheque via Western Union. A third way is on the internet at http://www.aviationmegastore.com/. Unfortunately, the price is much higher here.

Marcel Kareš, Pod Vrchem 1096/25, Plzeň - Lobzy 312 00, Czech Republic. e-mail: mkares@seznam.cz.

Modeling the Latvian or Turkish Letov Š-16

I've been looking for an excuse to build a couple of the 1/72-scale Š-16 kits I've squirreled away in the "loft". Marcel's book on the Š-16 in Foreign Service provided me with just the incentive I needed. Now it's a decision to decide which one to build: Latvian, Turkish, or Slovak. (The Yugoslav Š-16 requires the addition of floats and other modifications that are beyond my modeling capabilities.)

The easiest to build is a Slovak Š-16. The KP kit can be used as is, and the only problem is the selection of the markings. Marcel's book has a color profile drawing of an Š-16 in Slovak markings, but all the photos (except for a very fuzzy one) show the Slovak Š-16 still carrying the Czechoslovak national insignia along with the 3rd Aviation Regiment's unit insignia consisting of the Slovak cross. This is not surprising since there was little time to apply a new national insignia before the Slovaks were embroiled in conflict with Hungary. Finding the proper unit insignia should be no problem if you have several unbuilt kits of other Czechoslovak aircraft lying around.

The French magazine AVIONS #68 (November 1968) had a nice article on modifying the KP kit into a Latvian Š-16L. However, the text is in French and I was reluctant to rely on my elementary-school French to undertake the required modifications to the KP kit - until Marcel's book came out.

The most obvious difference is the change of engines from the Lorraine-Dietrich V-engine to the in-line Hispano-Suiza engine. The cylinder-head covers on the KP kit need to be filed down and new panel lines scribed. Marcel informed me that no scale drawings exist for the Latvian and Turkish Š-16. However, he explains that there are major differences and that the color profile drawings in his book are the result of an extensive study of photos and they are the most accurate drawings available. I traced the outline of his drawing of the Slovak Š-16 and compared it to his drawings of his Latvian and Turkish drawings. I found only minor differences: the rudder of the Latvian Š-16 was a little more pointed, and the landing gear of both is shorter. I am not a "rivet counter", so I can live without changing the rudder. However, shortening the landing gear by a scale 3 mm makes an important difference to the "sit" of the aircraft. This will require major modification of the undercarriage. However, I come from the almost extinct branch of modelers who believe that "if it's fun to build and final product looks right", give it a try".

After you've modified the KP kit, the next problem is determining the markings:

Latvia: The placement of the Ugunskrusts nation insignia on the fuselage is clearly shown on all the photos in Marcel's book. Also shown is the asymmetric placement of the insignia on the upper surfaces of the top wing. The insignia is at the tip of the port wing, while on the starboard wing it is close to the center section. (This was standard on many Latvian aircraft.) The placement of the insignia on the lower surface of the lower wing is more problematic. While many of the photos in the book show the insignia on the tip of the starboard lower wing, there are no clear photos showing the position of the insignia on the lower port wing. However, a photo of a Latvia Bulldog shows the insignia on the lower port wing close to the fuselage.

Turkey: No problems here. The Turkish red-square national insignia is positioned in the usual six positions. While many photos show the national insignia with an inscription within the red square, other photos show this was not always the case.

Jim Sanders (SAFCH #1), USA.

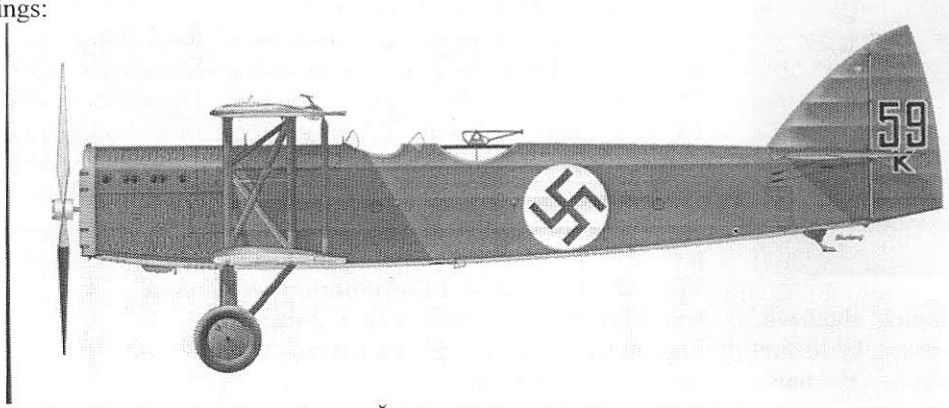
[Ed: Marcel's comments on the draft of the proceeding article follows.]

"As regards of your modeling article about Letov Š-16: I think that the KP kit (now produced by the Hungarian firm KP MODELS (http://www.kp-models.com/) is not useful for modification to the export versions. This kit is very old and probably most modelers will not want to try modifying this kit into the Latvian or Turkish versions.

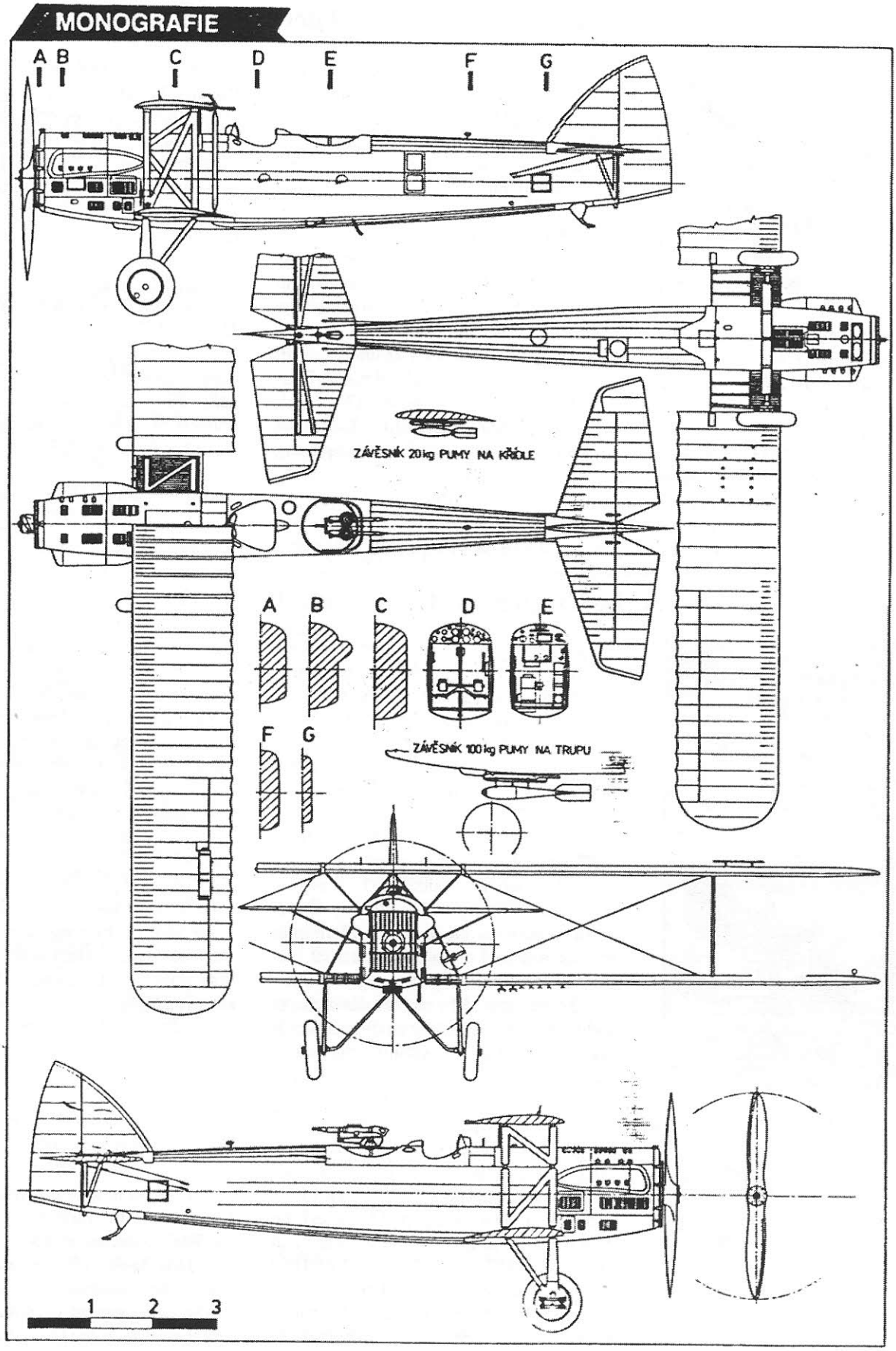
"Better kits are now available: a resin kits from AB MODELS (this firm also produces a kit of the Yugoslav version with floats). Another Czech firm AZ MODELS (http://www.legatokits.cz) is preparing kits of these the export variants in 1/48 scale. And another Czech firm, OMEGA MODELS (http://www.omega-models.com), probably will be releasing a kit of the Latvian Š-16L in 1/72 scale. So, there is no reason to modify the old kit from KP.

"The differences between the KP kit and the Latvian and Turkish versions are much greater than you think. Not only are there differences in the engines and landing gear, there are differences in the machineguns, fuselage, propeller, cockpits, and much more."

Marcel Kareš (SAFCH #1612), Czech Republic.



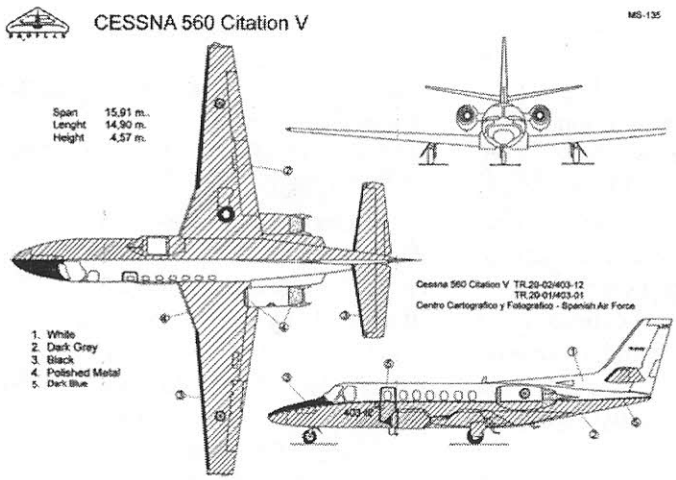
Profile drawing from Letov Š-16 v Zahraničních službách, by Marcel Kareš



Letov Š-16: Reprinted from Letectvi + Kosmonautika #12 1983

Three new vacuform kits have arrived from Janusz Brożek of Broplan. Since all three are of the high quality expected from Broplan, general comments will be made here so there will be no need to repeat them for each kit: Each kit consists of several sheets of vacuformed white styrene of medium thickness, two injection-molded sprues for those small fiddly parts than do not do well as vacuform parts, beautiful decals, and an instruction sheet that feature multi-view drawing of two subjects and an exploded construction diagram shows where all those parts go. The quality of the vacuformed parts is excellent, with the parts well-delineated from the background plastic and the panel lines neatly incised. The injection-molded parts are mostly flash free and are now molded in a white styrene; not the sickly green of the earlier Broplan kits. The vacuformed clear parts include the cockpit windscreen and cabin windows and are blemish-free. Interior detail is restricted to the cockpit and includes seats, control columns, instrument panels, and side panels. The decals are beautifully printed, but Janusz warns "The decal sheet must be sprayed with no less than two coats of clear acrylic before transfer to model."

Let's move on to the individual kits:

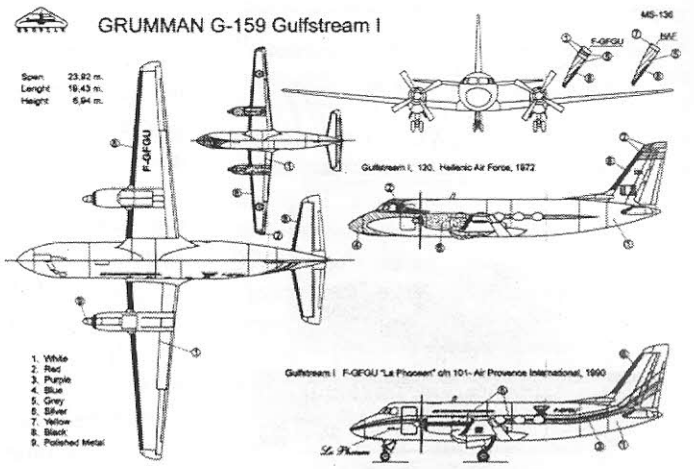


Cessna 560 Citation V, 1/72-scale vacuform kit with decals and injection-molded parts. Broplan MS-135. Janusz Brożek, ul. Pilotów 10G/33, 80-460 Gdańsk, Poland. E-mail: broplan@wp.pl.

This kit consists of two vacuformed sheets (220 mm by 120 mm), two injection-molded sprues (80 mm by 40 mm), vacuformed clear sheet (100 mm by 20 mm), and a decal sheet (105 mm by 45 mm).

Decals are provided for two Spanish Air Force, Centro Cartografico y Fotografico 'TR.20-02/403-12' and 'TR.20-01/403-01'. Both aircraft are white over dark grey and carry Spanish roundels in the usual six places.

This is the smallest of the new Broplan kits; the resulting model will have a wing span of 22.1 cm and a length of 20.7 cm. It is probably the easiest of the three to build since the fuselage does not have to be split to accommodate the size of Janusz's molds



Grumman G-159 Gulfstream I, 1/72-scale vacuform kit with decals and injection-molded parts. Broplan MS-136. Janusz Brożek, ul. Pilotów 10G/33, 80-460 Gdańsk, Poland. E-mail: broplan@wp.pl.

This kit consists of three sheets (220 mm by 120 mm) and one sheet (140 mm by 110 mm) of vacufomed styrene, two injection-molded sprues (80 mm by 70 mm), one sheet (100 mm by 20 mm) and one (50 mm by 35 mm) of vacufomed clear plastic, and a decal sheet (105 mm by 70 mm).

Decals are provided for two aircraft: (1) Hellenic Air Force, '120' 1972. White with blue and red trim. Roundels are in four wing positions and fin flashes are carried on the vertical fin. (2) Air Provence International 'F-GFGU' "La Phoceen" c/n 1010 – 1990. Overall white with purple and grey trim. The civil registration is a ghastly purple.

The completed model will have a wing span of 33.2 cm and a length of 27.0 cm. To accommodate Janusz's molding machine, the fuselage comes in two sections so alignment is critical.

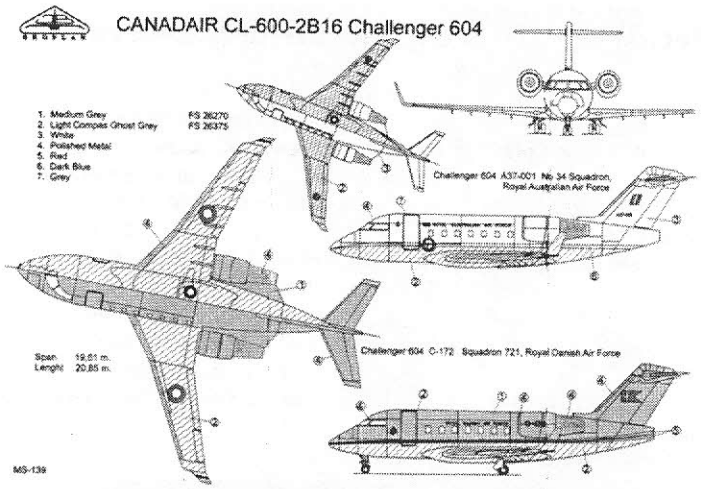
[Editor: The following letter was received from Greece.]

"The one and only Hellenic Gulfstream I was purchased in 1963 as a King's personal plane. It was painted glossy white with mid-blue FS 15102 and fluorescent orange FS 28913 trimming. Strangely, it was operated without a serial number for many years to follow.

"The King left Greece in Dec. 1967, and the next year the machine was taken over by 356 Transport Squadron as a VIP transport. In 1994, it was repainted: the blue was much darker and a strange, unspecified 'bordeaux' deep red replaced the fluorescent orange! At that time, for the first time a serial number '120' was painted on the fin. Since it was the only airframe of the type in Greek service, and its maintenance was of a pretty high cost, the Hellenic Air Force moved the machine (Oct '95) to the Hellenic AF Museum in Dekelia AF Base where its colours have faded under the Greece sun. Today it is still there where it keeps company with the ex-King's Agusta-Bell 47J-2 '066' helicopter.

"It is interesting to note that one of the three VIP transporters used by the HAF today is a Gulfstream V!"

Stamatis Andreou (SAFCH #1602), Greece.



Canadair CL-600 2B16 Challenger 604, 1/72-scale vacuform kit with decals and injection-molded parts. Broplan MS-139. Janusz Brożek, ul. Pilotów 10G/33, 80-460 Gdańsk, Poland. E-mail: broplan@wp.pl.

This kit consists of four sheets of vacuformed styrene (220 mm by 120 mm), two injection-molded sprues (80 mm by 80 mm), two vacuformed clear sheet one 100 mm by 20 mm and one 45 mm by 45 mm, and a decal sheet (105 mm by 95 mm).

Decals are provided for two aircraft: (1) Royal Australian Air Force, 'A37-001' No 34 Squadron. White over light compass ghost grey with a dark blue cheat line. Roundels are in four wing positions and on the forward fuselage. Fin flashes are carried on the vertical fin. (2) Royal Danish Air Force, 'C-172' Squadron 721. Medium grey over light compass ghost grey with a red cheat line. Roundels are in four wing positions and the Danish flag is carried on both sides of the vertical fin. The ROYAL DANISH AIR FORCE titles, the 721 Squadron unit emblem, and the serials 'C-172' are printed over the background color (medium grey) ala Air Scale Decals.

This is the largest of the three new kits with the completed model have a wing span of 27.2 cm and a length of 29.0 cm.

Broplan is complemented on proving three kits of medium-size transport aircraft, an area sadly neglected by larger manufacturer. Even better for SAFO readers, Janusz has supplied decals for small air forces. These kits are available from the SAFCH Sales Service for $30 each.

[Ed: By pure coincidence as I was writing this review the following e-mail was received from a friend in Germany.]

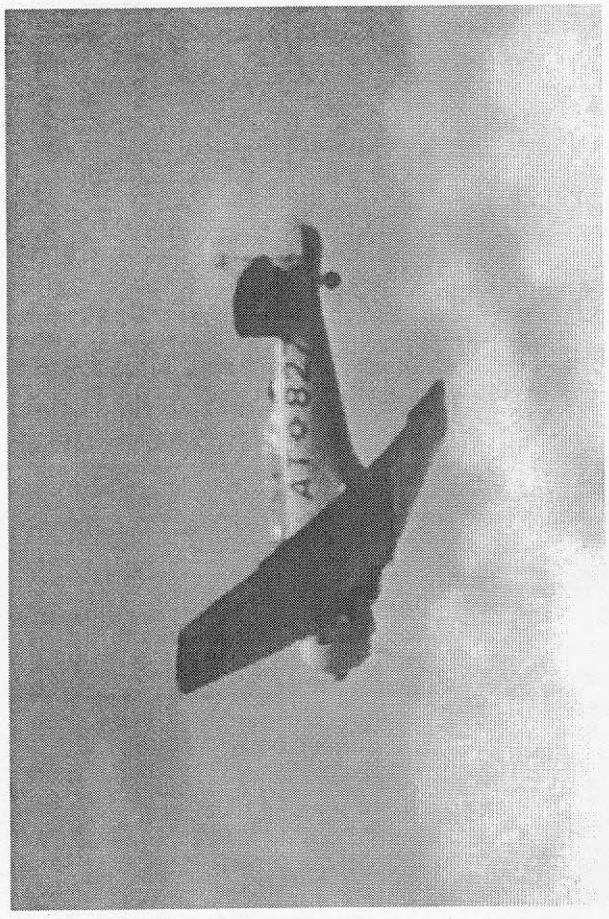
"Attached please find an image of Bombardier Challenger 604MMA C-168 of Esk 721 of the Royal Danish Air Force with special tail markings. The Challenger is seen lining up for take off at Kangerlussuaq airport in Greenland in the early morning of 10 August 2010."

Martin Bach (SAFCH #1275), Germany.

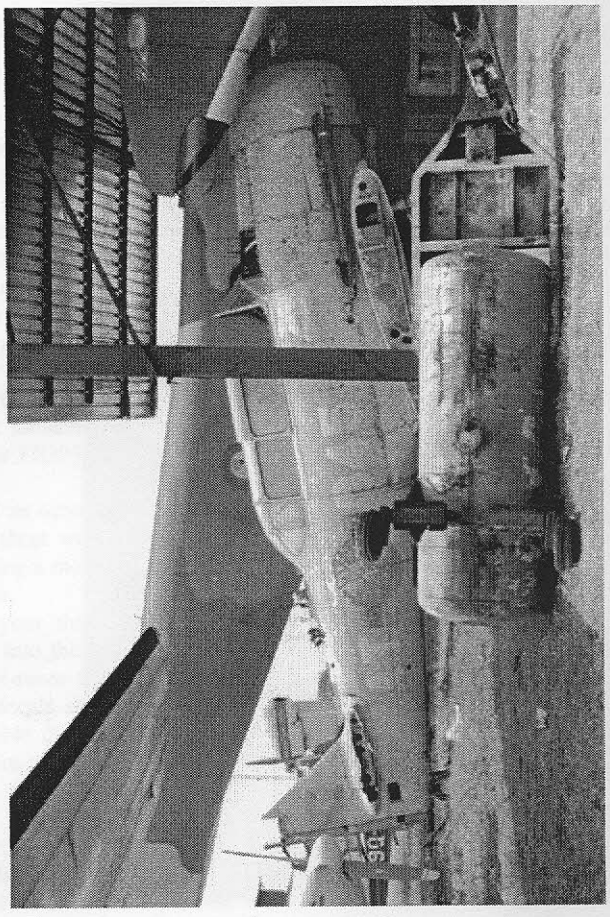


"Thought I would let you know - the former YuMo Models G-4 Super Galeb in 1/72 is available again through Linden Hill. It's $36.00, I think may be a limited release. It now comes with some photoetched parts (aerials, etc.) and decals for 5 Aircraft - Yugoslavia, Republic of Srpska, Serbia, Montenegro, and a basically overall blue plane from the Serbian Flight Test Department. Now THAT's Small Air Force! It is kit LHM-001, "G-4 Flight Test Dept", and is available through Linden Hill's website."

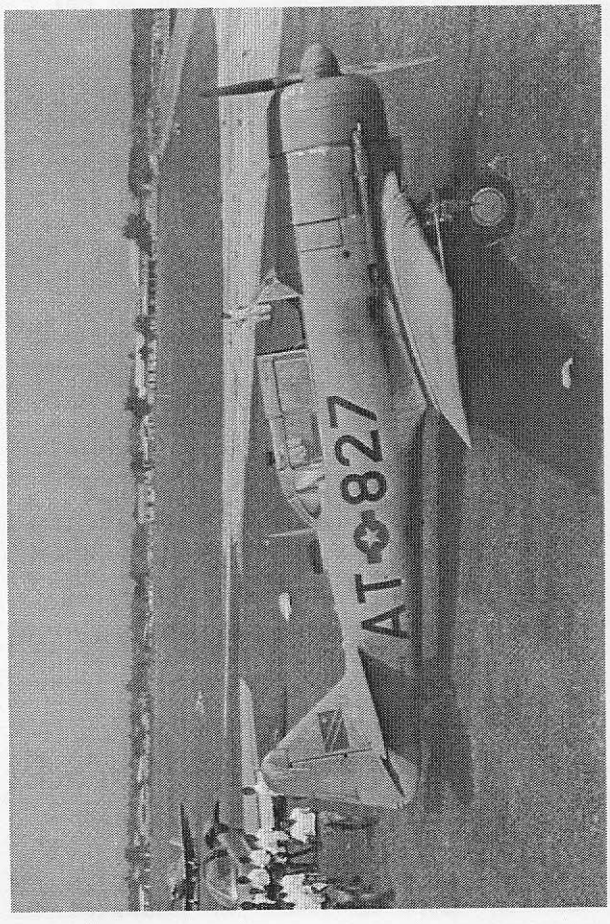
Tom Hampton (SAFCH #613), USA.



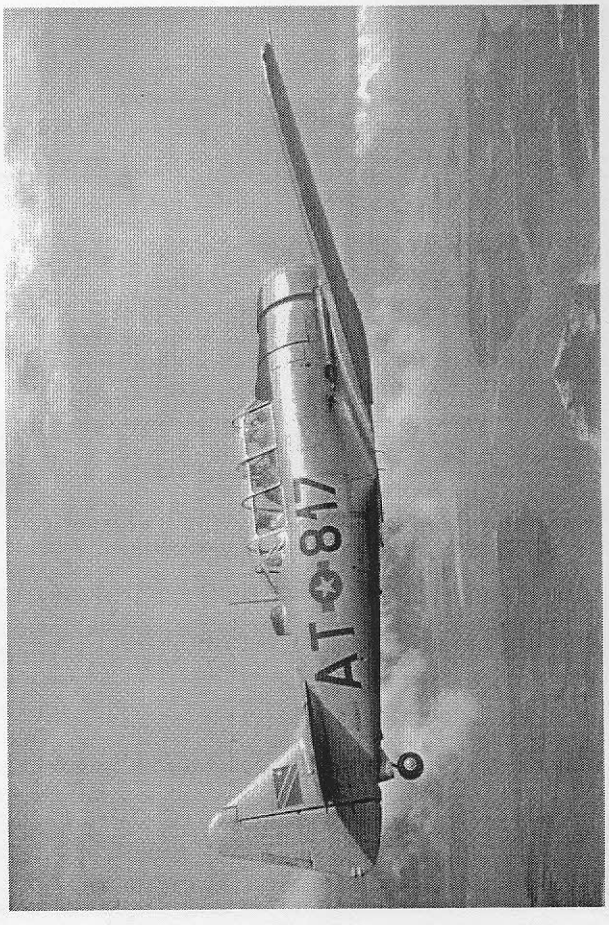
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Brothers in Arms 1: Warsaw Pact MiG-23Ms & MFs 1976-1990, 1/32-scale decals. Linden Hill Decals #LHD32009. Linden Hill Ltd., PO Box 543, Crugers, NY 10521, USA. Website: www.lindenhillimports.com.

This set consists of two decal sheets, each 95 mm by 195 mm, containing all the national insignia, unit markings, and serial numbers for nine MiG-23: three Soviet Union, one Bulgarian, two Hungarian, one Romanian, and two Polish.

The 8-page instruction sheet is a real gem. There are full-color starboard, port, and top views of all nine MiG-23. Soviet Union: 'Yellow 49' in overall light gray; and 'Blue 02' & 'Blue 92' in a camouflage of brown, sand brown, & green with blue gray undersides. Bulgaria: 'Red 870' in a camouflage of dark green, light green, & brown with light blue undersides. Hungary: 'Red 08' in overall light gray, and 'Red 04' in a camouflage of brown yellow & dark green with pale blue undersides. Romania: 'Red 222' in overall light gray. Poland: 'Red 117' in overall light gray and 'Red 121' in a camouflage of olive green, dark green, & light brown with light blue undersides. All colors are designated by their FS595 equivalents or approximations.

The decals are of an outstanding quality, while the instruction sheet would be a great guide to anyone building a model of the Mig-23 in 1/72 or 1/48 scale.

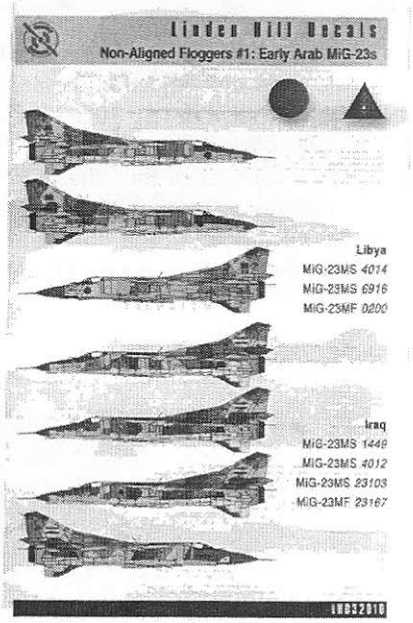
If 1/32-scale is your thing and you've always wanted to get into the small-air-force scene – and have lots room to display your models - then these decals should appeal to you. They are available direct from Linden Hill Decals and from the SAFCH Sales Service for $21.00.

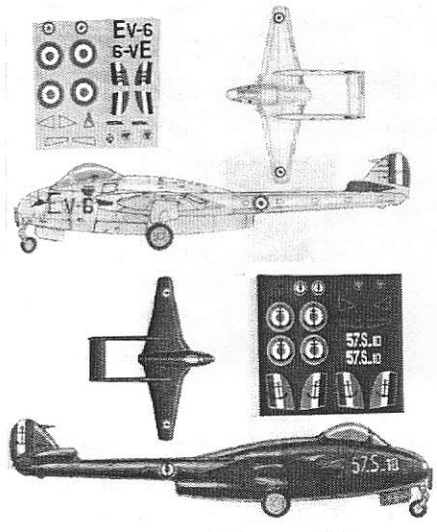
Non-Aligned Flogger #1: Early Arab MiG-23s, 1/32-scale decals. Linden Hill Decals #LHD32010. Linden Hill Ltd., PO Box 543, Crugers, NY 10521, USA. Website: www.lindenhillimports.com.

This set consists of one sheet of decals (95 mm by 195 mm) with all the national insignia, unit insignia, and serial number for seven Arab MiG-23: three Libyan and four Iraqi.

The 8-page instruction sheet contains outstanding full-color starboard, port, and plan view of all seven MiG-23s. Libya: '4014' & '6916' in standard Soviet camouflage for aircraft exported to the Middle East consisting of sand, dark earth, & green with light blue undersides, and '0200' in a camouflage of beige and green with light blue undersides. Iraq: '23167', '1449', & '23103' in a camouflage of sand, dark earth, & green with light blue undersides.

If you want to add Middle East MiGs to your collection of 1/32-scale aircraft, these decals are available direct from Linden Hill Decals and from the SAFCH Sales Service for $20.00.





SNCASE Mistral, 1.72-scale decals. Antarqui Decals, 757 Emory St. #106, Imperial Beach, CA 93032, USA. antarquidecals@yahoo.com.

The Mistral is a de Havilland Vampire built by the French. The only major external difference from the Vampire was a redesigned air intake to accommodate a more powerful engine.

In the first of their new twin-pack series, All Scale Decals provides two decal sheets, each 53 mm by 53 mm: one for an l'Armee de l'Air Mk.535 'Ev-6' in overall light grey and the other for an Mistral of the French Aeronavale '57 S-10' in overall sea blue. All roundels, fin flashes, and serial numbers are provided as well as many of the smaller details. Four fin flashes are provided for each aircraft since they are to be applied to both sides of both rudders. The instruction sheet is small, but adequate to show the placement of all the decals.

The decals themselves are of good quality and printed over the background color of the aircraft. This avoids the tedium of cutting around the smaller items, but does require the modeler to match the paint to the color of the background.

These decals are available directly from Antarqui Decals or from the SAFCH Sales Service for $6.00 plus $1.00 postage.

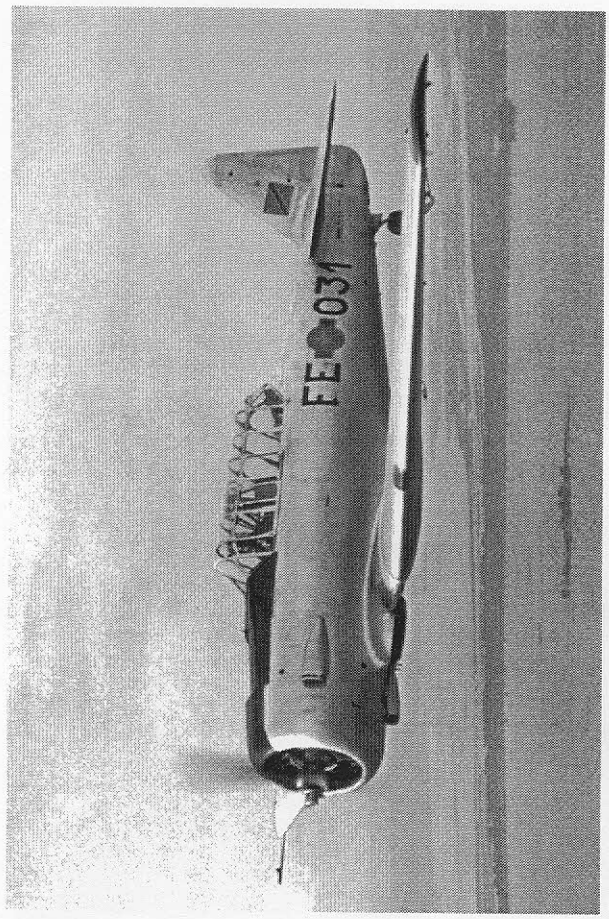
[Ed: The following e-mail as received from Antarqui Decals.]

"Our new name is Antarqui Decals. The old name, All Scale Decals, was only temporary and provisional.This new name brings fond memories to me because I worked for Aerolineas Peruanas APSA, and Antarqui was their logo, I was waiting to get the real colors of this figure. I finally did it after many years of waiting. From now on, Antarqui Decals will be the name of our company and business."

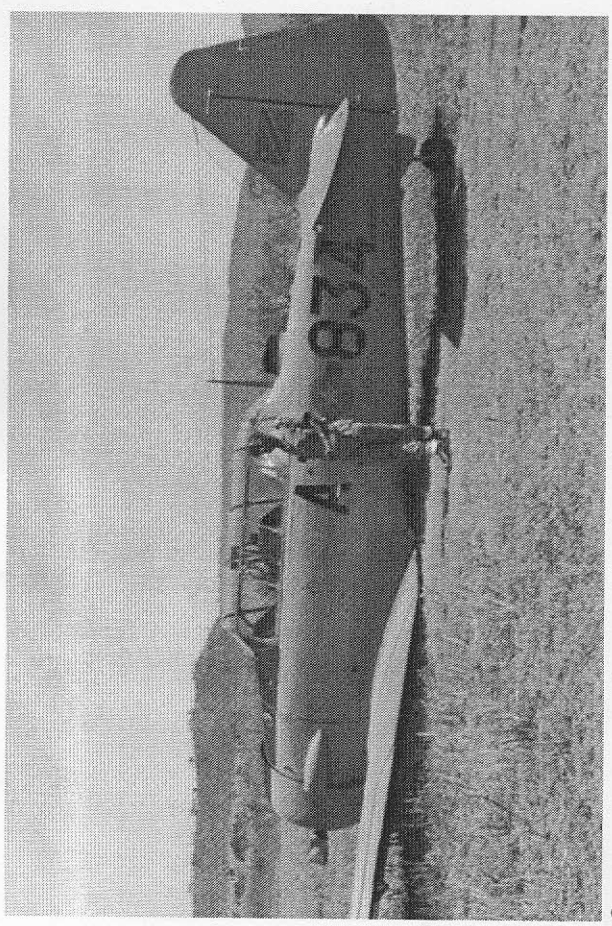
Ron Ferreyra (SAFCH #482), USA.



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